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Dry extract / extract comprising
Ginkgo biloba leaves, and/or any part.
A method of Preparation of a water-
soluble in dry ext. (Cl. 19.)
Uses → cosmetics + medicine

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L65 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 2001:162147 HCAPLUS

DN 134:183449

TI Process for **extracting natural flavonoid**

and/or **terpene lactones** from plant with adsorbent

IN Xu, Mingcheng; Shi, Zuoqing; Shi, Rongfu; Lu, Yanling; He, Binglin

PA Nankai Univ., Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

IC ICM C07H017-07

ICS C07D493-18; C07D493-22; B01D015-00; A61K035-78

CC 63-4 (Pharmaceuticals)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1262277	A	20000809	CN 1999-100347	19990125 <--
AB	<p>The process comprises crushing leaf of ginkgo, extg. with ethanol and/or water, recovering ethanol, dissolving in water, filtering, sepg. on urea-formaldehyde resin column with 70% ethanol as eluent, concg. in vacuum, drying, and grinding to obtain the ext. with flavonoid content of 24-42% and terpene lactone content of 6-15%. The process may be used to prep. the ext. with total flavonoid content of >62% from leaf of crataegus. The urea-formaldehyde resin is prepd. by mixing urea, 36- 38% formaldehyde soln., and org. base at a ratio of 38-50:50- 62:0.5-1, polymg. at 92-95.PHI.' and pH 7-8 for 2 h to obtain linear polymer soln.; adding 10-45% hydroxyl group-contg. sol. compd. and 1% HCl, stirring, adding nonionic surfactant/org. solvent, stirring at 30-45.PHI.' for >3 h,</p>				

filtering, and washing. The org. base is diethylenetriamine, triethylenetetraamine, or tetraethylenepentaamine. The nonionic surfactant is Span and/or Tween. The org. solvent is liq. paraffin, chlorobenzene, and/or o-dichlorobenzene.

ST **flavonoid terpene lactone extn**
 crataegus **ginkgo**; urea formaldehyde resin prepn

IT **Terpenes**, biological studies
 RL: BOC (Biological occurrence); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
 (lactones; process for **extg.** natural **flavonoid** and/or **terpene lactones** from plant with adsorbent)

IT Adsorbents
Ginkgo
 Hawthorn (Crataegus)
 Solvent **extraction**
 (process for **extg.** natural **flavonoid** and/or **terpene lactones** from plant with adsorbent)

IT **Flavonoids**
 RL: BOC (Biological occurrence); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
 (process for **extg.** natural **flavonoid** and/or **terpene lactones** from plant with adsorbent)

L65 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:639129 HCAPLUS

DN 133:227731

TI Method for obtaining an **extract** from **Ginkgo biloba leaves**

IN Ramazanov, Zakir; Bernal, Suarez Mariadel Mar

PA Pharmline Inc., USA

SO U.S., 4 pp.

CODEN: USXXAM

DT **Patent**

LA English

IC ICM A01N065-00

NCL 424195100

CC 63-4 (Pharmaceuticals)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6117431	A	20000912	US 1999-454186	19991203
AB	<p>A novel and environmentally friendly method is disclosed for producing a purified ext. from Ginkgo biloba leaves comprising the novel steps of differential centrifugation and extn. with supercrit. CO₂. A method of prep. a Ginkgo biloba ext. comprises the steps of (1) extg. Ginkgo biloba leaves with an alc./water soln.; (2) removing particulate materials from the soln.; (3) removing alc. from the soln. to form an aq. suspension; (4) subjecting the aq. suspension to differential centrifugation to form a second soln.; (5) drying the second soln. to form a solid; and (6) extg. the solid with supercrit. CO₂ to yield the Ginkgo biloba ext., where the ext. product contains less than 5 ppm in total of ginkgolic acid and ginkgolic acid derivs.</p>				
ST	Ginkgo differential centrifugation supercrit extn				
IT	Centrifugation (d.-gradient; differential centrifugation and supercrit. extn . for obtaining Ginkgo biloba exts. contg. low levels of undesired allergenic phenols)				
IT	Ginkgo biloba (differential centrifugation and supercrit. extn. for obtaining Ginkgo biloba exts. contg. low levels of undesired allergenic phenols)				

IT **Extraction**

(supercrit.; differential centrifugation and supercrit. **extn.** for obtaining **Ginkgo biloba exts.** contg. low levels of undesired allergenic phenols)

IT **22910-60-7, Ginkgolic acid**

RL: BOC (Biological occurrence); REM (Removal or disposal); BIOL (Biological study); OCCU (Occurrence); PROC (Process) (differential centrifugation and supercrit. **extn.** for obtaining **Ginkgo biloba exts.** contg. low levels of undesired allergenic phenols)

IT **124-38-9, Carbon dioxide, miscellaneous**

RL: MSC (Miscellaneous) (differential centrifugation and supercrit. **extn.** for obtaining **Ginkgo biloba exts.** contg. low levels of undesired allergenic phenols)

RE.CNT 29

RE

- (1) Anon; EP 0360556 1990
- (2) Anon; EP 0477968 1992
- (3) Ayroles; US 4981688 1991 HCAPLUS
- (4) Behr; US 4490398 1984 HCAPLUS
- (5) Ben-Nasr; US 5089280 1992 HCAPLUS
- (6) Bombardelli; US 5547673 1996
- (7) Bombardelli; US 5637302 1997
- (8) Bombardelli; US 5700468 1997
- (9) Coombs; US 4482453 1984 HCAPLUS
- (10) Deng; Zhongcaoya 1999, V30(6), P419 HCAPLUS
- (11) Friedrich; US 4466923 1984 HCAPLUS
- (12) Friedrich; US 4493854 1985 HCAPLUS
- (13) Katz; US 4472442 1984 HCAPLUS
- (14) Katz; US 4820537 1989 HCAPLUS
- (15) Liu; Fenxi Huaxie 1999, V27(2), P214 HCAPLUS
- (16) Manabe; US 5178735 1993 HCAPLUS
- (17) Nguyen; US 5017397 1991
- (18) O'Reilly; US 5389370 1995
- (19) Panzner; US 4554170 1985 HCAPLUS
- (20) Peter; US 5210240 1993 HCAPLUS
- (21) Reinhard; US 5660831 1997
- (22) Schwabe; US 5322688 1994
- (23) Schwabe; US 5399348 1995
- (24) Schwabe; US 5512286 1996
- (25) Sevenants; US 4675198 1987 HCAPLUS
- (26) Spinelli; US 4692280 1987 HCAPLUS
- (27) van Beek; Phytochem Anal 1996, V7(4), P185 HCAPLUS
- (28) Vitzthum; US 5225223 1993
- (29) Yao; Chin Chem Lett 1995, V6(7), P589 HCAPLUS

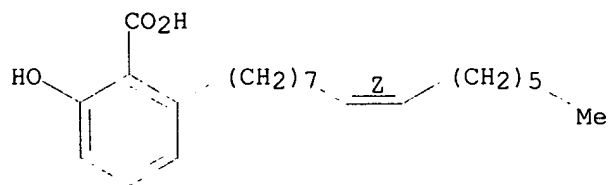
IT **22910-60-7, Ginkgolic acid**

RL: BOC (Biological occurrence); REM (Removal or disposal); BIOL (Biological study); OCCU (Occurrence); PROC (Process) (differential centrifugation and supercrit. **extn.** for obtaining **Ginkgo biloba exts.** contg. low levels of undesired allergenic phenols)

RN 22910-60-7 HCAPLUS

CN Benzoic acid, 2-hydroxy-6-(8Z)-8-pentadecenyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L65 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:300788 HCAPLUS

DN 132:326032

TI Manufacture of **ginkgo leaf extract** using
dimethyl ether as **extractant**

IN Miyata, Kazushige

PA Asahi Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K035-78

ICS A61K035-78; A23L001-30; A61P009-00

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 11, 17, 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000128792	A2	20000509	JP 1998-299238	19981021 <--
AB	<p>The ext., which shows immunostimulating action, blood platelet activating factor-inhibiting action, cerebral function-improving action, etc. and is useful for drugs, food, and cosmetics, is manufd. as powder by (1) crushing Ginkgo biloba leaves, (2) extg. the crushed leaves with water-contg. Me2O, (3) sepg. the ext. from the extn. residue by filtration, (4) evapg. Me2O from the filtrate to ppt. hydrophobic substances in H2O, (5) removing the ppt. from the aq. ext., (6) concg. the aq. ext., (7) adding electrolytes to the concd. ext. to ppt. the active ingredients, (8) recovering the insol. fraction, (9) dissolving the insol. fraction in water-contg. Me2O, (10) sepg. the insol. matter, and then (11) removing the solvent and drying the residue.</p> <p>Extn. temp. and pressure may be 10-30.degree. and 0.2-0.8 MPa, resp. Te electrolytes may be sulfates, chlorides, or nitrates of metals or ammonium. The method provides a ginkgo ext. free from residual org. solvent. An ext. powder manufd. from 100 g dried G. biloba leaves as described above contained flavone glycosides (total amts. of quercetin, kaempferol, and isorhamnetin) 24%, terpene lactones (total amts. of bilobalide, ginkgolides A, B, and C) 6%, ginkgolic acid .ltoreq.10 ppm, and Me2O .ltoreq.1 ppm.</p>				
ST	ginkgo leaf ext manuf dimethyl ether				
	extractant				
IT	Glycosides				
	RL: BOC (Biological occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)				
	(flavonoid, oxo; manuf. of ginkgo leaf ext. using di-Me ether as extractant)				
IT	Terpenes , biological studies				
	RL: BOC (Biological occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)				
	(lactones; manuf. of ginkgo leaf ext. using di-Me ether as extractant)				
IT	Extractants				
	Ginkgo biloba				
	(manuf. of ginkgo leaf ext. using di-Me ether as extractant)				
IT	117-39-5P, Quercetin 480-19-3P, Isorhamnetin 520-18-3P, Kaempferol 15291-75-5P, Ginkgolide A 15291-76-6P, Ginkgolide C 15291-77-7P, Ginkgolide B 33570-04-6P, Bilobalide				
	RL: BOC (Biological occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)				
	(manuf. of ginkgo leaf ext. using di-Me ether as extractant)				
IT	115-10-6, Dimethyl ether				

RL: NUU (Other use, unclassified); USES (Uses)

(manuf. of **ginkgo leaf ext.** using di-Me
ether as **extractant**)

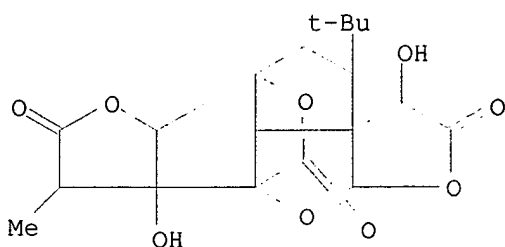
IT 15291-75-5P, Ginkgolide A 15291-76-6P,
Ginkgolide C 15291-77-7P, Ginkgolide B
33570-04-6P, Bilobalide

RL: BOC (Biological occurrence); PUR (Purification or recovery); BIOL
(Biological study); OCCU (Occurrence); PREP (Preparation)

(manuf. of **ginkgo leaf ext.** using di-Me
ether as **extractant**)

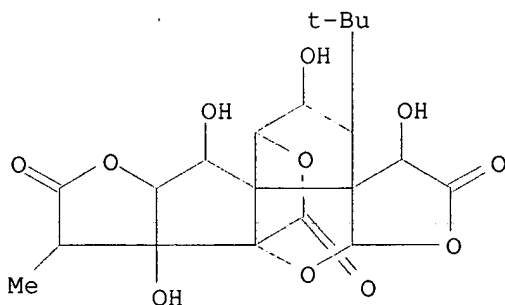
RN 15291-75-5 HCAPLUS

CN 9H-1,7a-(Epoxyethano)-1H,6aH-cyclopenta[c]furo[2,3-
b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,
3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-,
(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)-(9CI) (CA INDEX NAME)



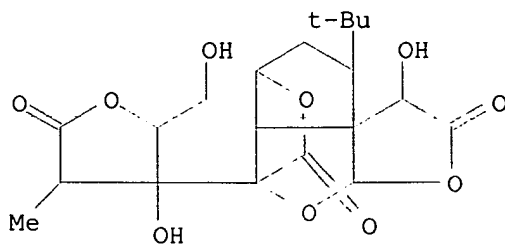
RN 15291-76-6 HCAPLUS

CN 9H-1,7a-(Epoxyethano)-1H,6aH-cyclopenta[c]furo[2,3-
b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,
3-(1,1-dimethylethyl)hexahydro-2,4,7b,11-tetrahydroxy-8-methyl-,
(1S,2R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)-(9CI) (CA INDEX NAME)

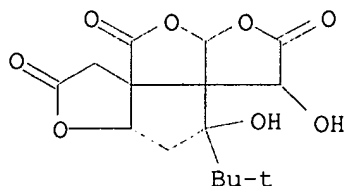


RN 15291-77-7 HCAPLUS

CN 9H-1,7a-(Epoxyethano)-1H,6aH-cyclopenta[c]furo[2,3-
b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,
3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-,
(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)-(9CI) (CA INDEX NAME)



RN 33570-04-6 HCAPLUS
 CN 4H,5aH,9H-Furo[2,3-b]furo[3',2':2,3]cyclopenta[1,2-c]furan-2,4,7(3H,8H)-
 trione, 9-(1,1-dimethylethyl)-10,10a-dihydro-8,9-dihydroxy-,
 (3aS,5aR,8R,8aS,9R,10aS)- (9CI) (CA INDEX NAME)



L65 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2001 ACS
 AN 2000:201177 HCAPLUS
 DN 132:212670
 TI **Extraction of ginkgo lactone and**
 compositions containing same
 IN Zhou, Guozhu; Zhou, Lingguo
 PA Peop. Rep. China
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 IC ICM C07G017-00
 ICS A61K035-78
 CC 63-4 (Pharmaceuticals)
 Section cross-reference(s): 1, 11

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1195665	A	19981014	CN 1997-107809	19971202 <--
	CN 1055091	B	20000802		
AB	The process comprises extg. ginkgo leaf or root bark with 10-25 fold of water by boiling, filtering, treating with activated C or macroporous resin for 24-96 h, filtering, eluting with 15-30 fold of ethanol for 4-12 h, filtering, recovering ethanol by concg., crystg., purifying with org. solvent, and drying at 60-120.degree.. The org. solvent is selected from ethanol, acetone and propanediol. Capsules comprise ginkgo lactone 0.5-15, dextrin 20-40, starch 50-70, propanediol 20-80, lactose 5-10, CaHPO4 2-4, Mg stearate 0.5-1.2, Tween-80 1-3, and benzyl alc. 1-3 parts.				
ST	ginkgo lactone extn capsule injection				
IT	Drug delivery systems (capsules; extn. of ginkgo lactone and compns. contg. same)				
IT	Ginkgo (extn. of ginkgo lactone and compns. contg. same)				
IT	Lactones RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (extn. of ginkgo lactone and compns. contg. same)				
IT	Drug delivery systems (injections; extn. of ginkgo lactone and compns. contg. same)				

L65 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2001 ACS
 AN 2000:122859 HCAPLUS
 DN 133:22237
 TI Studies on **extraction** and isolation of **flavonoids** from **Ginkgo leaves**

AU Ding, Zhien
CS Department of Forest Products, Anhui Agricultural University, Anhui,
230036, Peop. Rep. China
SO J. Food Qual. (1999), 22(6), 693-700
CODEN: JFQUD7; ISSN: 0146-9428
PB Food & Nutrition Press, Inc.
DT Journal
LA English
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 11
AB The leaf of **Ginkgo (Ginkgo biloba**
L.) contains various substances that are considered to have
health-promoting properties. Most of these biol. active substances fall
into 2 groups: **flavonoids** and **terpenoids**. This study
describes a method to **ext.** and isolate **flavonoids** from
Ginkgo leaves. The method consisted of **extn.**
with an ethanol soln. and isolation by affinity column chromatog. Results
showed that 50% ethanol gave a better **extn.** yield than 70%
ethanol, while 20 or 40% ethanol concn. was the choice as a wash solvent.
The highest yield resulted from the use of 50% ethanol as
extractant and 40% ethanol as wash solvent. This combination
produced a final **ext.** with a **flavone glycoside**
concn. as high as 24.31%, constituting about 3.7% of the **dry**
matter in the original **leaves**. The procedure is simple and
readily adaptable for commercialization.
ST **Ginkgo flavonoid extn**
IT **Ginkgo biloba**
(**extn.** and isolation of **flavonoids** from
Ginkgo leaves)
IT **Flavonoids**
RL: BOC (Biological occurrence); PEP (Physical, engineering or chemical
process); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(**extn.** and isolation of **flavonoids** from
Ginkgo leaves)
IT **Glycosides**
RL: BOC (Biological occurrence); PEP (Physical, engineering or chemical
process); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(**flavonoid**, **oxo**; **extn.** and isolation of
flavonoids from **Ginkgo leaves**)
IT 64-17-5, Ethanol, uses
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical
process); PROC (Process); USES (Uses)
(**extn.** and isolation of **flavonoids** from
Ginkgo leaves)
RE.CNT 14
RE
(1) Chi, J; J Chinese Herbal Med 1997, V22(2), P107
(2) Drieu, K; Presse Medicale 1986, V15(31), P1455 HCAPLUS
(3) Guo, S; Ginkgo biloba In China Fruits 1993
(4) LI, Z; Chinese Trad Patent Med 1994, V16(10), P52
(5) Liang, L; Shangdong Forest Sci 1993, V87(2), P11
(6) Qiu, C; Chinese Trad and Herbal Med 1981, V12(10), P42
(7) Qiu, G; Acta Academiae Medicinae Hubei 1996, V17(3), P205 HCAPLUS
(8) Smith, P; J Ethanopharmacol 1996, V50, P131 HCAPLUS
(9) Song, Y; Forest Chem Ind 1986, V6(3), P42 HCAPLUS
(10) The Institute Of Chinese Medicine Science; Chinese Trad and Herbal Med
1980, V11(3), P138
(11) van Staden, J; South African J Botany 1996, V62(1), P1 HCAPLUS
(12) Xing, S; Shangdong Forest Sci 1993, V87(1), P1
(13) Yao, W; Chinese Trad Herbal Med 1995, V26(3), P157 HCAPLUS
(14) Zhuang, X; Chinese Trad Herbal Med 1992, V23(3), P122 HCAPLUS
L65 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:15604 HCAPLUS
DN 132:35038
TI **Water-soluble native vegetable dried**

extract, in particular **Ginkgo biloba**
 • extract with high content of **terpenoids** and **flavone glycosides**.

IN Oschmann, Rainer; Grethlein, Eckardt
 PA Willmar Schwabe G.m.b.H. and Co., Germany
 SO Ger. Offen., 8 pp.
 CODEN: GWXXBX

DT Patent
 LA German

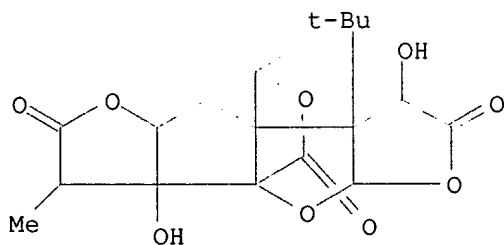
IC ICM A23L001-221
 ICS A23L001-30; A61K035-78; A61K031-70; A61K031-365; A61K007-00

CC 17-6 (Food and Feed Chemistry)
 Section cross-reference(s): 62, 63

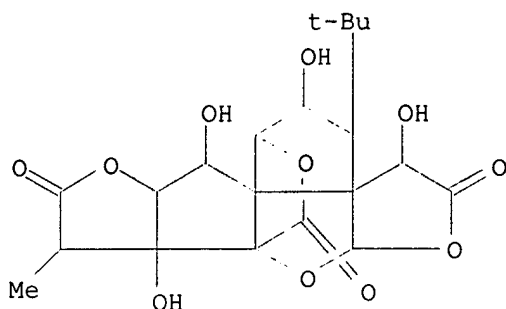
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19829516	A1	20000105	DE 1998-19829516	19980702 <--
	WO 2000001397	A1	20000113	WO 1999-DE1812	19990619 <--
	W: AU, CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9954069	A1	20000124	AU 1999-54069	19990619 <--
	EP 1089748	A1	20010411	EP 1999-939923	19990619 <--
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
PRAI	DE 1998-19829516	A	19980702	<--	
	WO 1999-DE1812	W	19990619	<--	
AB	A water-sol. native vegetable dried ext. from plant parts, esp. from Ginkgo biloba leaves, contains flavone glycosides, terpene lactones and other components and is prepd. from an ultrafiltered alc.-water ext. preferably. The ext. is used in dietetic foods, drugs and cosmetics.				
ST	Ginkgo leaf ext manuf flavone glycoside terpenoid				
IT	Food (dietetic; water-sol. native vegetable dried ext., in particular Ginkgo biloba ext. with high content of terpenoids and flavone glycosides.)				
IT	Glycosides RL: BUU (Biological use, unclassified); FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (flavonoid, oxo; water-sol. native vegetable dried ext., in particular Ginkgo biloba ext. with high content of terpenoids and flavone glycosides.)				
IT	Ginkgo biloba (leaves; water-sol. native vegetable dried ext., in particular Ginkgo biloba ext. with high content of terpenoids and flavone glycosides.)				
IT	Lactones RL: BUU (Biological use, unclassified); FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (terpenoid; water-sol. native vegetable dried ext., in particular Ginkgo biloba ext. with high content of terpenoids and flavone glycosides.)				
IT	Cosmetics Drugs Plant (Embryophyta) Ultrafiltration (water-sol. native vegetable dried ext., in particular Ginkgo biloba				

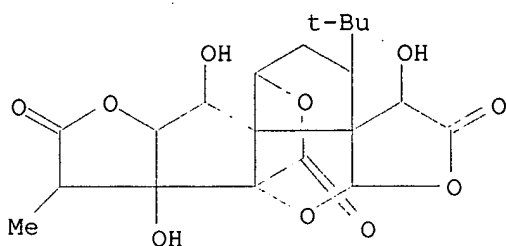
- ext. with high content of **terpenoids** and **flavone glycosides.**)
- IT **Terpenes, biological studies**
 RL: BUU (Biological use, unclassified); FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (water-sol. native vegetable dried ext., in particular **Ginkgo biloba** ext. with high content of **terpenoids** and **flavone glycosides.**)
- IT 9004-34-6, Cellulose, processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process) (regenerated, ultrafiltration with S 1Y3; water-sol . native vegetable dried ext., in particular **Ginkgo biloba** ext. with high content of **terpenoids** and **flavone glycosides.**)
- IT 15291-75-5P, Ginkgolide A 15291-76-6P, Ginkgolide C 15291-77-7P, Ginkgolide B 22910-60-7P, Ginkgolic acid 33570-04-6P, Bilobalide
 RL: BUU (Biological use, unclassified); FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (water-sol. native vegetable dried ext., in particular **Ginkgo biloba** ext. with high content of **terpenoids** and **flavone glycosides.**)
- RE.CNT 1
 RE
 (1) Anon; DE 19829516 A1 HCAPLUS
- IT 15291-75-5P, Ginkgolide A 15291-76-6P, Ginkgolide C 15291-77-7P, Ginkgolide B 22910-60-7P, Ginkgolic acid 33570-04-6P, Bilobalide
 RL: BUU (Biological use, unclassified); FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (water-sol. native vegetable dried ext., in particular **Ginkgo biloba** ext. with high content of **terpenoids** and **flavone glycosides.**)
- RN 15291-75-5 HCAPLUS
 CN 9H-1,7a-(Epoxy-methano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)



- RN 15291-76-6 HCAPLUS
 CN 9H-1,7a-(Epoxy-methano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-2,4,7b,11-tetrahydroxy-8-methyl-, (1S,2R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)

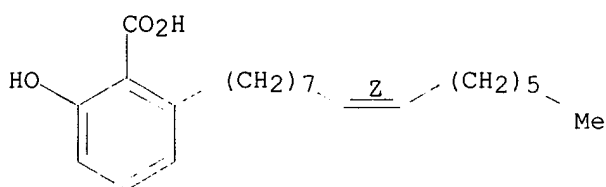


RN 15291-77-7 HCAPLUS
 CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)

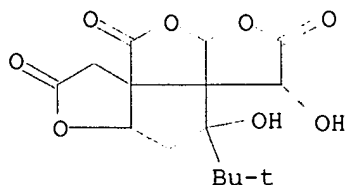


RN 22910-60-7 HCAPLUS
 CN Benzoic acid, 2-hydroxy-6-(8Z)-8-pentadecenyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 33570-04-6 HCAPLUS
 CN 4H,5aH,9H-Furo[2,3-b]furo[3',2':2,3]cyclopenta[1,2-c]furan-2,4,7(3H,8H)-trione, 9-(1,1-dimethylethyl)-10,10a-dihydro-8,9-dihydroxy-, (3aS,5aR,8R,8aS,9R,10aS)- (9CI) (CA INDEX NAME)



L65 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2001 ACS
 AN 1999:631786 HCAPLUS
 DN 132:148589
 TI Production technology of Ginkgo flavonoid glycosides with macroporous adsorption resin

AU Chen, Yun-long; Xie, Bi-jun; Hu, Wei-wang; Xu, Cheng; Yang, Zhijian
 CS College of Life Science, Zhejiang University, Hangzhou, 310012, Peop. Rep. China
 SO Zhejiang Daxue Xuebao, Lixueban (1999), 26(2), 80-82
 CODEN: ZDXKF6
 PB Zhejiang Daxue Xuebao Bianjibu
 DT Journal
 LA Chinese
 CC 9-2 (Biochemical Methods)
 Section cross-reference(s): 11
 AB **Dried Ginkgo biloba leaves** were extd. for 30 min under reflux with 70% aq. ethanol. The clear filtrate was concd. under vacuum. The aq. ethanol residue was enriched by different type macroporous adsorption resins. The product rate of **Ginkgo ext.** was 2.50% .apprx. 2.92%, contained about 25.7% .apprx. 34.6% (wt./wt.) of **Ginkgo flavonoid glycosides**.
 ST **Ginkgo flavonoid glycoside extn** ethanol; macroporous absorbent resin **flavonoid glycoside Ginkgo**
 IT **Glycosides**
 RL: PUR (Purification or recovery); PREP (Preparation)
 (flavonoid; prodn. technol. of **Ginkgo flavonoid glycosides** with macroporous adsorption resin)
 IT Resins
 RL: NUU (Other use, unclassified); USES (Uses)
 (macroporous; prodn. technol. of **Ginkgo flavonoid glycosides** with macroporous adsorption resin)
 IT Absorbents
Ginkgo biloba
 (prodn. technol. of **Ginkgo flavonoid glycosides** with macroporous adsorption resin)
 IT 64-17-5, Ethanol, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (prodn. technol. of **Ginkgo flavonoid glycosides** with macroporous adsorption resin)

L65 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2001 ACS
 AN 1999:579929 HCAPLUS
 DN 131:182480
 TI **Extraction of total flavonoids from Ginkgo leaf**
 IN Geng, Peng
 PA Peop. Rep. China
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 IC ICM C07D311-76
 CC 11-1 (Plant Biochemistry)
 Section cross-reference(s): 1, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1129218	A	19960821	CN 1995-118737	19951115 <--
	CN 1048724	B	20000126		
AB	The title compds. are isolated by soaking minced Ginkgo leaf with water overnight, extg. with a mixt. of satd. lime water and antioxidant, filtering, vacuum concg., cooling to 40 - 50.degree., absorbing for 3-6 h, filtering, adding 95% alc. to the filtrate, treating the mixt. with 5% Na2CO3 soln. to pH 9 - 10, aging, filtering, acidifying the supernatant with 10% HCl to pH 6, absorbing with resin and 70% alc. as eluent, recovering alc., vacuum concg., and drying at 60.degree. and vacuum. The antioxidant is NaHSO4 or Na2B4O7, its addn. is 0.02 - 0.08%.				

ST flavonoid ginkgo leaf extn;
ginkgo leaf extn flavonoid
IT Ginkgo biloba
(extn. of total flavonoids from Ginkgo
leaf)
IT Flavonoids
RL: PUR (Purification or recovery); PREP (Preparation)
(extn. of total flavonoids from Ginkgo
leaf)
IT 1330-43-4, Sodium tetraborate 7681-38-1, Sodium hydrogen sulfate
RL: NUU (Other use, unclassified); USES (Uses)
(extn. of total flavonoids from Ginkgo
leaf)

L65 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2001 ACS
AN 1999:572847 HCAPLUS
DN 131:294961
TI Ginkgo biloba extract (EGb
761). A state of art at the dawn of the third millenium
AU Clostre, F.
CS Inst. Henri Beaufour, Les Ulis, F-91966, Fr.
SO Ann. Pharm. Fr. (1999), 57(Suppl. 1), 1S8-1S88
CODEN: APFRAD; ISSN: 0003-4509
PB Masson Editeur
DT Journal; General Review
LA French
CC 1-0 (Pharmacology)
Section cross-reference(s): 11
AB A review with 295 refs. EGb 761 is a standardized
ext. of dried leaves of Ginkgo
biloba contg. 24% ginkgo-flavonol
glycosides, 6% terpene lactones such as
ginkgolides A, B, C, J and bilobalide. Its broad
spectrum of pharmacol. activities is discussed.
ST review EGb 761 ginkgo compn pharmacol
IT Ginkgo biloba
Pharmacokinetics
Pharmacology
(compn. and pharmacol. of Ginkgo biloba ext
. EGb 761)
IT 122933-57-7, EGb 761
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
effector, except adverse); BPR (Biological process); PRP (Properties); THU
(Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(compn. and pharmacol. of Ginkgo biloba ext
. EGb 761)
IT 122933-57-7, EGb 761
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
effector, except adverse); BPR (Biological process); PRP (Properties); THU
(Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(compn. and pharmacol. of Ginkgo biloba ext
. EGb 761)
RN 122933-57-7 HCAPLUS
CN Tanakan (platelet-activating factor-acether antagonist) (9CI) (CA INDEX
NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L65 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2001 ACS
AN 1999:32171 HCAPLUS
DN 130:100704
TI Composites of carbohydrate powders and ginkgo leaf
extracts and their manufacture
IN Umeda, Seiichi
PA Yaken Y. K., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent
 LA Japanese
 IC ICM A61K035-78
 ICS A61K009-16; A61K009-20; A61K047-26
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 17

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11005746	A2	19990112	JP 1997-160051	19970617 <--
AB	The composites comprising sugar- or sugar alc.-based powders and ginkgo leaf exts. supported thereon, useful for treatment of senile dementia, hypertension, aftereffects of brain injury, decline of memory, etc., are manufd. by spray-drying H2O-contg. EtOH solns. of ginkgo leaf exts. over a fluidized layer of sugar- or sugar alc.-based powders. The composites are also manufd. by mixing sugar- or sugar alc.-based powders with 20-80% (vol./vol.) EtOH solns. of ginkgo leaf exts. so that concn. of the sugars in the final products becomes .gtoreq.50% and evapg. the solvents. The composites show good dissoln. A com. water-insol. powdery ginkgo ext. contg. 24% flavone glucosides and 6% terpene lactones was dissolved in 30% (vol./vol.) EtOH soln., and the soln. was sprayed over fluidized maltitol powder to give microfine granules. A mixt. of the granules and sucrose fatty acid esters was compressed to give tablets.				
ST	ginkgo leaf ext carbohydrate powder composite; maltitol ginkgo leaf ext spray drying; radical scavenger ginkgo leaf ext granulation; wet granulation maltitol ginkgo leaf ext				
IT	Ginkgo Granules (drug delivery systems) Health food Radical scavengers Spray drying Tablets (drug delivery systems) Wet granulation (manuf. of composites of carbohydrate powders and ginkgo leaf exts. as radical scavengers by spray drying or wet granulation)				
IT	Alditols Carbohydrates, biological studies RL: FFD (Food or feed use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (manuf. of composites of carbohydrate powders and ginkgo leaf exts. as radical scavengers by spray drying or wet granulation)				
IT	9004-34-6, Cellulose, biological studies 9004-53-9, Dextrin 9005-25-8, Starch, biological studies RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (disintegrant; manuf. of composites of carbohydrate powders and ginkgo leaf exts. as radical scavengers by spray drying or wet granulation)				
IT	50-99-7, Glucose, biological studies 585-88-6, Maltitol RL: FFD (Food or feed use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (manuf. of composites of carbohydrate powders and ginkgo leaf exts. as radical scavengers by spray drying or wet granulation)				

L65 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2001 ACS
 AN 1998:332497 HCAPLUS
 DN 129:58679
 TI Preparation of **dry extract** rich in **ginkgolides**

from **Ginkgo biloba L. leaves**
 AU Li, Xin-Gang; Wei, Wei; Chen, Wei
 CS Dept. of Chemistry, Naval Medical College, Nanjing, 210099, Peop. Rep. China
 SO Zhongguo Yiyao Gongye Zazhi (1998), 29(1), 8-9
 CODEN: ZYGZEA; ISSN: 1001-8255
 PB Zhongguo Yiyao Gongye Zazhi Bianjibu
 DT Journal
 LA Chinese
 CC 63-4 (Pharmaceuticals)
 AB **Flavonoid glycosides rich in ginkgolides** were extd. from G. biloba green leaves with boiling EtOH and purified by means of an adsorbent polyamide resin in 2.48% yield. HPLC showed that the product contained 27.4% **flavonoid glycosides** and 10.6% **ginkgolides**.
 ST **Ginkgo ginkgolide**
 IT **Ginkgo biloba**
 (prepn. of dry ext. contg. ginkgolides from **Ginkgo biloba leaves**)
 IT **Flavonoid glycosides**
 RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
 (prepn. of dry ext. contg. ginkgolides from **Ginkgo biloba leaves**)

L65 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1998:268371 HCAPLUS

DN 128:326475

TI Use of **Ginkgo biloba extracts** for the preparation of pharmaceutical compositions, and method of cosmetic treatment using a **Ginkgo biloba extract**

IN Castelli, Dominique; Friteau, Laurence; Ries, Gerd

PA ROC, Fr.; Castelli, Dominique; Friteau, Laurence; Ries, Gerd

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K035-78

ICS A61K007-48

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9817295	A1	19980430	WO 1997-IB1319	19971021 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	FR 2754714	A1	19980424	FR 1996-12822	19961022 <--
	FR 2754714	B1	19990122		
	CA 2240997	AA	19980430	CA 1997-2240997	19971021 <--
	AU 9744704	A1	19980515	AU 1997-44704	19971021 <--
	EP 877619	A1	19981118	EP 1997-943121	19971021 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	CN 1211925	A	19990324	CN 1997-192462	19971021 <--
	BR 9706889	A	19991228	BR 1997-6889	19971021 <--
	JP 2000517345	T2	20001226	JP 1998-519167	19971021 <--
PRAI	FR 1996-12822	A	19961022 <--		
	WO 1997-IB1319	W	19971021 <--		
AB	At least 1 active ingredient extractable from G. biloba is used				

for prepn. of a compn. with immunomodulatory activity which can be used for cosmetic treatment of sensitive skin. Thus, **dry G. biloba leaves** were **extd.** to remove chlorophyll, lipids, waxes, lectins, etc. to provide a **dry ext. contg. 32% flavone** heterosides. This **ext.** decreased the prodn. of TNF and NO₂- by human keratinocytes and macrophages which had been activated with IL-4 to induce CD23 low-affinity IgE receptors and then stimulated with IgE-contg. immune complexes to induce cytokine formation.

- ST **Ginkgo** immunosuppressant skin allergy; **flavone** heteroside **Ginkgo** cosmetic
- IT AIDS (disease)
 - (dermatol. disorders in; immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)
- IT Mucous membrane
 - (disease, allergy; immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)
- IT Skin diseases
 - (ichthyosis; immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)
- IT Allergic dermatitis
 - Allergy inhibitors
 - Atopy
 - Dermatitis
 - Eczema
 - Ginkgo biloba**
 - Immunosuppressants
 - Lupus erythematosus
 - Psoriasis
 - Topical drug delivery systems
 - Urticaria
 - Vitiligo
 - (immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)
- IT Diseases (animal)
 - (mucous membrane, allergy; immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)
- IT Erythema
 - (multiforme; immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)
- IT Dermatitis
 - (neurodermatitis; immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)
- IT **Flavonoid glycosides**
 - RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (oxo; immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)
- IT Skin diseases
 - (pemphigus; immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)
- IT Allergic contact dermatitis
 - (photosensitivity, benign estival; immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)
- IT Skin diseases
 - (rosacea; immunosuppressant **Ginkgo biloba exts.** for prepn. of pharmaceutical and cosmetic compns.)

L65 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2001 ACS
 AN 1998:126116 HCAPLUS
 DN 128:215515
 TI Studies on the productive technology of **Ginkgo (Ginkgo biloba) extract**
 AU Chen, Cong; Luo, Siqi

CS Qinling Institute of Plant Development, Baoji, 721703, Peop. Rep. China
SO Zhongcaoyao (1997), 28(7), 402-404
CODEN: CTYAD8; ISSN: 0253-2670
PB Guojia Yiyao Guanliju Tianjin Yaowu Yanjiuso
DT Journal
LA Chinese
CC 11-1 (Plant Biochemistry)
AB The leaves of *G. biloba* were **extd.** with 65% ethanol under reflux. The **concd. ext.** was treated with water, clarified, and filtered. The necessary components in the filtrate were adsorbed on macro reticular resin, and eluted with 70% ethanol. After **concn.** the alc. elute was spray **dried** and *G. biloba* **lactone** which have been **prepd.** from the residue during clarifier treatment by column chromatog. was added to give the final *G. biloba* **ext.** a **flavonoid** content of >26% and **lactone** of content >6%.

ST **Ginkgo ext flavonoid lactone manuf**
IT **Ginkgo biloba**
(**ext.** of; productive technol. of **Ginkgo** (**Ginkgo biloba**) **ext.**)

IT **Flavonoids**
Lactones
RL: BOC (Biological occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(in **Ginkgo biloba ext.**; productive technol. of **Ginkgo** (**Ginkgo biloba**) **ext.**)

L65 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:113860 HCAPLUS
DN 128:125825
TI Production of **ginkgolides** by callus cultures of *icho* (**Ginkgo biloba**) **leaves**
AU Itoh, Kazutaka; Shiraishi, Kazunori; Takechi, Yuri; Miyata, Masaru; Tachibana, Sanro
CS College Agriculture, Ehime Univ., Matsuyama, 790, Japan
SO Mokuzai Gakkaishi (1998), 44(1), 1-8
CODEN: MKZGA7; ISSN: 0021-4795
PB Nippon Mokuzai Gakkai
DT Journal
LA Japanese
CC 11-1 (Plant Biochemistry)
AB Calli were induced from **leaves** of **Ginkgo biloba** L. on Murashige and Skoog medium, supplemented with 2,4-dichlorophenoxyacetic acid and kinetin, and subcultured on the same medium. High-performance liq. chromatog. analyses of the **extractive** of calli revealed that they produced **ginkgolides** A and B that are known as antagonists to the platelet-activating factor. The contents of **ginkgolides** A and B in the calli were 0.0049% and 0.0180%, resp., of the **dry wt.** when the calli were incubated at 25.degree.C in the light. On the other hand, the contents of **ginkgolides** A and B in calli incubated at 25.degree.C in the dark were 0.0017% and 0.0094%, resp., of the **dry wt.** Callus cultures in the dark and light produced from 23 to 67% and from 57 to 110% of **ginkgolides** A and B, resp., of those in the **leaves** of intact plants. The contents of **ginkgolides** A and B in the calli were increased 1.2 and 5.9 times, resp., compared to **leaves** of intact plants when elicitors were added to the calli. When geranylgeraniol as a biogenetic precursor of **ginkgolides** was added to the calli, the contents of **ginkgolides** A and B were increased 1.2 and 3.0 times, resp., compared to **leaves** of intact plants.

ST **ginkgolide callus Ginkgo**
IT Tissue culture (plant)
(callus; prodn. of **ginkgolides** by callus cultures of **Ginkgo biloba leaves**)

IT **Ginkgo biloba****Leaf**(prodn. of ginkgolides by callus cultures of **Ginkgo biloba** leaves)

IT 15291-75-5, Ginkgolide A 15291-77-7,

Ginkgolide B

RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)

(prodn. of ginkgolides by callus cultures of **Ginkgo biloba** leaves)

IT 15291-75-5, Ginkgolide A 15291-77-7,

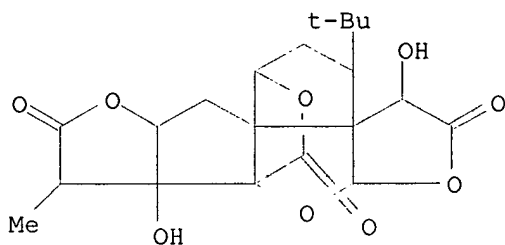
Ginkgolide B

RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)

(prodn. of ginkgolides by callus cultures of **Ginkgo biloba** leaves)

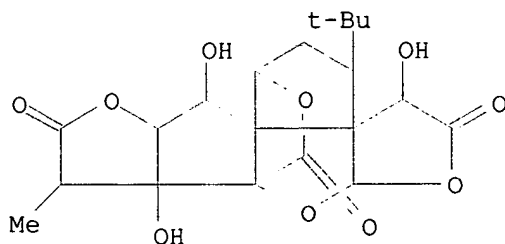
RN 15291-75-5 HCAPLUS

CN 9H-1,7a-(Epoxyethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)



RN 15291-77-7 HCAPLUS

CN 9H-1,7a-(Epoxyethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)



L65 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1998:43689 HCAPLUS

DN 128:164604

TI Optimum technological conditions for **extracting flavone** from **leaves of Ginkgo biloba** L

AU Chen, Chong; Wang, Wenfeng; Sun, Laijiu

CS Chemical Research Institute of Shanxi Province, Xi'an, 710069, Peop. Rep. China

SO Jingxi Huagong (1997), 14(6), 19-21

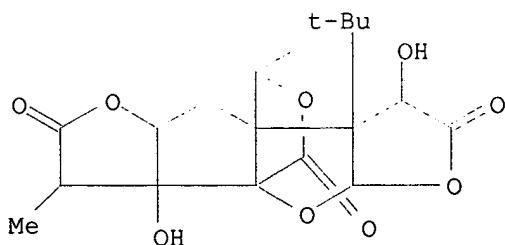
CODEN: JIHUFJ; ISSN: 1003-5214

PB Jingxi Huagong Bianjibu

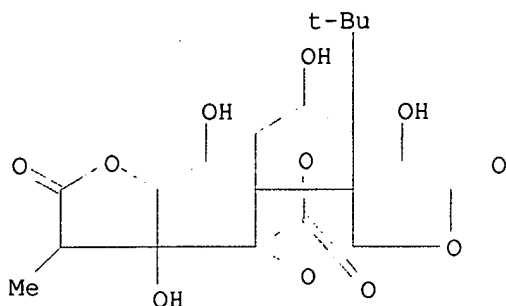
DT Journal

LA Chinese

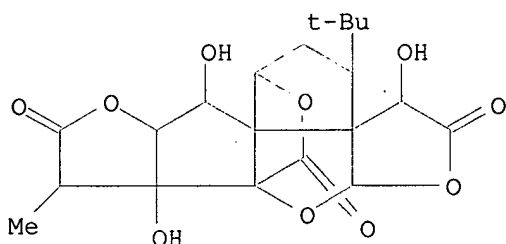
- CC 9-9 (Biochemical Methods)
Section cross-reference(s): 11
- AB This paper is concerned with the technique of **extg.**
flavone from **leaves** of **Ginkgo biloba** L. with
90% ethanol. And the optimum operation is gained: settling: GBE with
water 5 times per operation; absorbing when pH =3.apprx.4; scrubbing the
resin with water that is 13 times the vol. of the resin and with 25%
ethanol that is 7 times the vol. of the resin; regenerating the resin
after it has used three times; **drying** the elution by spray
drying. Under the optimum technol. conditions, the contact of the
flavone in the product is above 26% and of the **Ginkgolide**
A.B.C is above 6%.
- ST **Ginkgo flavone extn** ethanol
- IT **Ginkgo biloba**
(optimum technol. conditions for **extg. flavone** from
leaves of **Ginkgo biloba** L)
- IT 525-82-6P, **Flavone** 15291-75-5P, **Ginkgolide A**
15291-76-6P, **Ginkgolide c** 15291-77-7P,
Ginkgolide B
RL: BOC (Biological occurrence); PUR (Purification or recovery); BIOL
(Biological study); OCCU (Occurrence); PREP (Preparation)
(optimum technol. conditions for **extg. flavone** from
leaves of **Ginkgo biloba** L)
- IT 64-17-5, Ethanol., uses
RL: NUU (Other use, unclassified); USES (Uses)
(optimum technol. conditions for **extg. flavone** from
leaves of **Ginkgo biloba** L)
- IT 15291-75-5P, **Ginkgolide A** 15291-76-6P,
Ginkgolide c 15291-77-7P, **Ginkgolide B**
RL: BOC (Biological occurrence); PUR (Purification or recovery); BIOL
(Biological study); OCCU (Occurrence); PREP (Preparation)
(optimum technol. conditions for **extg. flavone** from
leaves of **Ginkgo biloba** L)
- RN 15291-75-5 HCAPLUS
- CN 9H-1,7a-(Epoxyethano)-1H,6aH-cyclopenta[c]furo[2,3-
b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,
3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-,
(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)



- RN 15291-76-6 HCAPLUS
- CN 9H-1,7a-(Epoxyethano)-1H,6aH-cyclopenta[c]furo[2,3-
b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,
3-(1,1-dimethylethyl)hexahydro-2,4,7b,11-tetrahydroxy-8-methyl-,
(1S,2R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)



RN 15291-77-7 HCAPLUS
 CN 9H-1,7a-(Epoxyethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)



L65 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2001 ACS
 AN 1997:552108 HCAPLUS
 DN 127:238967
 TI Selective adsorption of **flavonoid** compounds from the **leaf extract** of **Ginkgo biloba** L.
 AU Yoon, Sung Y.; Choi, Won Jae; Park, Jong Moon; Yang, Ji-Won
 CS Department of Chemical Engineering, School of Environmental Engineering, Pohang University of Science and Technology, Kyungbook, 790-784, S. Korea
 SO Biotechnol. Tech. (1997), 11(8), 553-556
 CODEN: BTECE6; ISSN: 0951-208X
 PB Chapman and Hall
 DT Journal
 LA English
 CC 63-4 (Pharmaceuticals)
 Section cross-reference(s): 9, 11
 AB A simple purifn. method was developed in which **flavonoid** compds. are selectively adsorbed onto a polycarboxyl ester resin (XAD-7) from methanol **ext.** of **ginkgo leaves**. When 1.0 g **dried ginkgo leaves** was **extd.** with 100 mL methanol, about 98% of total **flavonoid** compds. was recovered by selective adsorption. The pH did not affect the adsorption of **flavonoids** but at high pH the chem. structure of **flavonoids** was changed and the adsorption decreased to almost zero. As the soln. polarity played a key role in the selective adsorption, the amt. of water added to the methanol **ext.** was crit. for the recovery and loading of **flavonoids**. Using std. **flavonoids**, kaempferol and quercetin, the optimal water content was 80% and the recovery was 80% with 10 g of resin dosage/L.
 ST adsorption **flavonoid Ginkgo ext**
 IT Adsorption
 Ginkgo biloba
 (adsorption of **flavonoids** from **Ginkgo biloba exts.**)

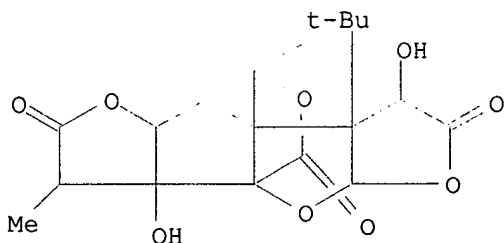
- IT **Flavonoids**
RL: BOC (Biological occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(adsorption of **flavonoids** from **Ginkgo biloba exts.**)
- IT 37380-43-1, Amberlite XAD-7
RL: NUU (Other use, unclassified); USES (Uses)
(adsorption of **flavonoids** from **Ginkgo biloba exts.**)
- L65 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:690733 HCAPLUS
DN 123:101976
TI Pharmacokinetics of **bilobalide**, **ginkgolide A** and **ginkgolide B** in healthy volunteers following oral and intravenous administrations of **Ginkgo biloba extract** (**EGB 761**)
AU Fourtillan, J. B.; Brisson, A. M.; Girault, J.; Ingrand, I.; Decourt, J. Ph.; Drieu, K.; Jouenne, Ph.; Biber, A.
CS CEMAF, Poitiers, 86000, Fr.
SO Therapie (1995), 50(2), 137-44
CODEN: THERAP; ISSN: 0040-5957
DT Journal
LA French
CC 1-2 (Pharmacology)
AB The pharmacokinetics of **Ginkgolide A**, **Ginkgolide B** and **Bilobalide**, which are compds. **extd.** from the **dried leaves** of the **Ginkgo biloba** tree, were investigated in 12 young healthy volunteers (six men and six women; mean \pm SD age = 25 \pm 5 yr) after single-dose administration of **Ginkgo biloba ext.** Subjects were given, on three occasions, **Ginkgo biloba ext.** as a soln. either orally (in fasting conditions and after a std. meal) or i.v.; corresponding to single doses of **Ginkgolide A**, **Ginkgolide B** and **Bilobalide** ranging from 0.90 mg to 3.36 mg. After each dosing, blood and urine samples were collected for up to 36 h and 48 h, for measurements of **Ginkgolide A**, **Ginkgolide B** and **Bilobalide**. Plasma and urine concns. of these compds. were quant. measured by gas chromatog./mass spectrometry using neg. chem. ionization, by applying a very sensitive method which allowed plasma concns. as low as 0.2 ng/mL of each compd. to be measured. When given orally, while fasting, the extents of bioavailability are high, as shown by bioavailability coeffs. (FAUC) mean (\pm SD).
- ST **bilobalide ginkgolide Ginkgo ext**
pharmacokinetics; **EGB 761** metabolite pharmacokinetics
- IT **Ginkgo biloba**
(pharmacokinetics of **bilobalide** and **ginkgolides A** and **B** in humans following oral and i.v. administrations of **EGB 761**)
- IT 122933-57-7, **EGB 761**
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(pharmacokinetics of **bilobalide** and **ginkgolides A** and **B** in humans following oral and i.v. administrations of **EGB 761**)
- IT 15291-75-5, **Ginkgolide A** 15291-77-7, **Ginkgolide B** 33570-04-6, **Bilobalide**
RL: BPR (Biological process); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(pharmacokinetics of **bilobalide** and **ginkgolides A** and **B** in humans following oral and i.v. administrations of **EGB 761**)
- IT 122933-57-7, **EGB 761**
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(pharmacokinetics of **bilobalide** and **ginkgolides A** and **B** in humans following oral and i.v. administrations of **EGB 761**)

RN 122933-57-7 HCAPLUS
 CN Tanakan (platelet-activating factor-acether antagonist) (9CI) (CA INDEX NAME)

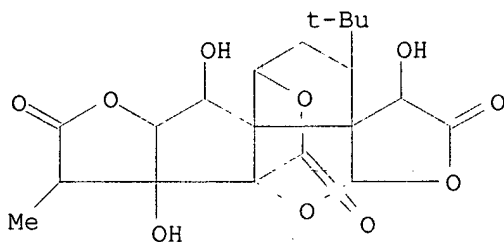
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 15291-75-5, Ginkgolide A 15291-77-7,
 Ginkgolide B 33570-04-6, Bilobalide
 RL: BPR (Biological process); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
 (pharmacokinetics of bilobalide and ginkgolides A and B in humans following oral and i.v. administrations of EGb 761)

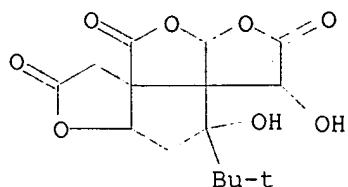
RN 15291-75-5 HCAPLUS
 CN 9H-1,7a-(Epoxy-methano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)-(9CI) (CA INDEX NAME)



RN 15291-77-7 HCAPLUS
 CN 9H-1,7a-(Epoxy-methano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)-(9CI) (CA INDEX NAME)



RN 33570-04-6 HCAPLUS
 CN 4H,5aH,9H-Furo[2,3-b]furo[3',2':2,3]cyclopenta[1,2-c]furan-2,4,7(3H,8H)-trione, 9-(1,1-dimethylethyl)-10,10a-dihydro-8,9-dihydroxy-, (3aS,5aR,8R,8aS,9R,10aS)-(9CI) (CA INDEX NAME)



DN 121:818
TI Ischemia and reperfusion-induced injury in rat retina obtained from normotensive and spontaneously hypertensive rats: effects of free radical scavengers
AU Droy-Lefaix, M.-T.; Szabo, M.E.; Doly, M.
CS IPSEN, Paris, Fr.
SO Int. J. Tissue React. (1993), 15(2), 85-91
CODEN: IJTEDP; ISSN: 0250-0868
DT Journal
LA English
CC 1-12 (Pharmacology)
AB The authors have studied the effects of free radical scavengers, superoxide dismutase (SOD) and **ext. of Ginkgo biloba (EGb 761, flavone-rich ext.)** on ion shifts (Na, K and Ca) induced by ischemia and reperfusion in rat retina obtained from normotensive and spontaneously hypertensive rats. Eyes were subjected to 90 min of ischemia by occlusion of the retinal artery, followed by 4 and 24 h of reperfusion. SOD (15,000 U/kg, i.v.) or **EGb 761** (50 mg/kg, per os) was administered in a daily dose for 10 days. In the drug-free control groups, 90 min of ischemia significantly increased tissue Na⁺ gains from their pre-ischemic control values of 63 \pm 7 μ M/g **dry wt.** (in retina obtained from normotensive rats) and 76 μ M/g **dry wt.** (in retina obtained from hypertensive rats) to 89 \pm 9 μ M/g **dry wt.** and 101 \pm 7 μ M/g **dry wt.**, resp. During reperfusion, a further elevation was found in retinal Na⁺ in both the normotensive and hypertensive groups. Probably, because of the ischemia-induced inhibition of Na-K-ATPase, retinal K loss was detected after ischemia and reperfusion, resp. An accumulation of retinal Ca²⁺ was measured after ischemia and reperfusion in the normotensive and spontaneously hypertensive groups. Both free radical scavengers significantly reduced the maldistribution of ions induced by ischemia and reperfusion, but the effectiveness of drugs was more evident in normotensive than hypertensive groups. The present results indicate that the elimination of free radicals by free radical scavengers may reduce, probably via an indirect mode, the reperfusion-induced ionic imbalance and improve the ionic homeostasis in injured retinal cells obtained from normotensive and spontaneously hypertensive rats.
ST eye retina injury radical scavenger; ischemia reperfusion retina injury radical
IT **Ginkgo biloba**
(**exts.**, ischemia and reperfusion-induced retinal injury in normotension and hypertension response to)
IT Radicals, biological studies
RL: BIOL (Biological study)
(scavengers for, ischemia and reperfusion-induced retinal injury in normotension and hypertension response to)
IT Eye, disease
(ischemia, retina injury induced by, in normotension and hypertension, free radical scavengers effect on)
IT **Flavonoids**
RL: BIOL (Biological study)
(**oxo**, of **Ginkgo biloba**, ischemia and reperfusion-induced retinal injury in normotension and hypertension response to)
IT Perfusion
(**re-**, retinal injury induced by ischemia and, in normotension and hypertension, free radical scavengers effect on)
IT Eye, disease
(retina, injury, ischemia and reperfusion-induced, in normotension and hypertension, free radical scavengers effect on)
IT Hypertension
(spontaneous, ischemia and reperfusion-induced retinal injury in, free radical scavengers effect on)
IT 9054-89-1, Superoxide dismutase
RL: BIOL (Biological study)

(ischemia and reperfusion-induced retinal injury in normotension and hypertension response to)

IT 7440-23-5, Sodium, biological studies 7440-70-2, Calcium, biological studies
 RL: BIOL (Biological study)
 (of retina, in ischemia and reperfusion-induced injury, in normotension and hypertension, free radical scavengers effect on)

IT 9000-83-3, ATPase
 RL: BIOL (Biological study)
 (potassium-sodium-dependant, in ischemia-induced retinal injury, in normotension and hypertension, free radical scavengers effect on)

IT 122933-57-7, EGb 761, biological studies
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
 (retinal ischemia and reperfusion-induced injury response to)

IT 122933-57-7, EGb 761, biological studies
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
 (retinal ischemia and reperfusion-induced injury response to)

RN 122933-57-7 HCAPLUS

CN Tanakan (platelet-activating factor-acether antagonist) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L65 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1992:91368 HCAPLUS

DN 116:91368

TI Preparation of **ginkgo extract**

IN Makino, Takao; Nakatate, Masao; Matsumoto, Takeshi

PA Tama Biochemical Co., Ltd., Japan; Daicel Chemical Industries, Ltd.

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K035-78

ICS A61K035-78

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 11

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03275629	A2	19911206	JP 1990-71812	19900323 <--
	JP 3029270	B2	20000404		

AB A **ginkgo ext.** is prepd. which contains >15% **flavone glycosides** and has **soly.** of >5% in **water**. The method includes making the **ginkgo leaf ext.** weak alk., subjecting the soln. to column chromatog. contg. a nonpolar porous resin, washing the column with **water** and a dild. alc. soln., followed by eluting with a concd. alc. The **flavones** are useful as vasodilators (no data). Thus, 1 kg **dried ginkgo leaves** were **extd** . with 12 L **water** at 80-90.degree. for 2 h, the pH adjusted to 8.5, and the **extd.** soln. was subjected to a column chromatog. contg. Diaion HP-10 resin. The column was washed with **water** and alc. solns., and spray-dried to give 35 g of **flavone glycosides**.

ST **ginkgo ext flavone glycoside**

IT Vasodilators

(**flavone glycosides** from ginko leaves as)

IT **Ginkgo**

(**leaves, flavone glycoside extn**

. from, as vasodilators)

IT **Glycosides**

RL: PROC (Process)

(**flavonoid, extn. of, from ginkgo**

leaves, as vasodilators)

IT **Glycosides**

RL: PROC (Process)
(flavonoid, oxo, extn. of, from ginkgo
leaves, as vasodilators)

L65 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1992:37934 HCAPLUS

DN 116:37934

TI Detection of **ginkgolide A** in **Ginkgo biloba**
cell cultures

AU Carrier, Danielle Julie; Chauret, Nathalie; Mancini, Michael; Coulombe,
Pierre; Neufeld, Ronald; Weber, Martin; Archambault, Jean

CS Chem. Eng. Dep., McGill Univ., Montreal, PQ, H3A 2A7, Can.

SO Plant Cell Rep. (1991), 10(5), 256-9

CODEN: PCRPD8; ISSN: 0721-7714

DT Journal

LA English

CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 16, 30

AB **Ginkgo biloba** cells were cultured in two 500 mL shake
flasks and in 2 L and 6 L immobilization bioreactors using Murashige and
Skoog medium supplemented with 1 mg/L NAA, 0.1 mg/L K and 30 g/L sucrose.
Specific growth rates were 0.06 day⁻¹, 0.11 day⁻¹ and 0.07 day⁻¹ for the 2
L and 6 L bioreactors and shake flask cultures, resp.

Extracellular phosphate, nitrate, ammonium and carbohydrate uptake
rates of the bioreactor cultures were approx. 17 to 39% slower than those
of shake flask cultures. The specific O₂ uptake and CO₂ transfer rates of
immobilized *G. biloba* cells ranged from 0.027 to 0.041 mmol O₂/g
dry wt./h (max. uptake at 14 days) and 0.020 to 0.057 mmol CO₂/g

dry wt./h (max. prodn. at 14 days). **Exts.** from the
biomass of the two immobilized and shake flask suspension cultures were
analyzed for **ginkgolide A** by GC-MS. Yields of 7, 17, 19 and 7
ng/g **dry** wt. of **ginkgolide A** were detd. for shake

flask 1, shake flask 2 and the 2 L and 6 L immobilized cultures, resp.

Traces of **ginkgolide B** were detected with the signal to noise
ratio, however, being too low for pos. confirmation of this last product.

ST **ginkgolide Ginkgo** culture

IT **Ginkgo biloba**

(**ginkgolide A** in cultures of)

IT Plant tissue culture

(**ginkgolide A** in, of **Ginkgo biloba**)

IT 15291-75-5, **Ginkgolide A** 15291-77-7,

Ginkgolide B

RL: BIOL (Biological study)

(in **Ginkgo biloba** cell cultures)

IT 15291-75-5, **Ginkgolide A** 15291-77-7,

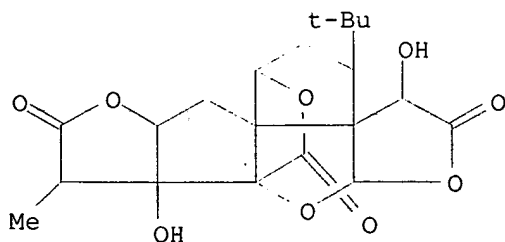
Ginkgolide B

RL: BIOL (Biological study)

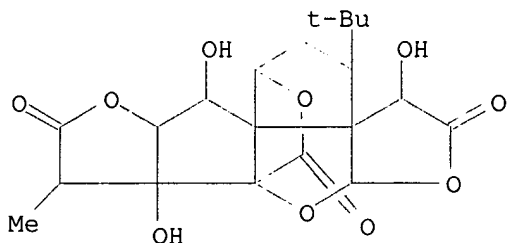
(in **Ginkgo biloba** cell cultures)

RN 15291-75-5 HCAPLUS

CN 9H-1,7a-(Epoxy-methano)-1H,6aH-cyclopenta[c]furo[2,3-
b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,
3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-,
(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)-(9CI) (CA INDEX NAME)



RN 15291-77-7 HCAPLUS
 CN 9H-1,7a-(Epoxyethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)



L65 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2001 ACS
 AN 1991:415699 HCAPLUS
 DN 115:15699
 TI Determination of **ginkgolides** and **bilobalide** in **Ginkgo biloba** leaves and phytopharmaceuticals
 AU Van Beek, T. A.; Scheeren, H. A.; Rantio, T.; Melger, W. C.; Lelyveld, G. P.
 CS Lab. Org., Agric. Univ., Wageningen, 6703 HB, Neth.
 SO J. Chromatogr. (1991), 543(2), 375-87
 CODEN: JOCRAM; ISSN: 0021-9673
 DT Journal
 LA English
 CC 64-2 (Pharmaceutical Analysis)
 AB A method was developed for the detn. of the pharmacol. active **terpenoids ginkgolide A, B and C and bilobalide** in **G. biloba** leaves and phytopharmaceutical preps. contg. **ginkgo exts.** The leaves (400-800 mg) are selectively **extd.** with MeOH-H₂O (10:90) and the resulting **ext.** is purified by a polyamide and a C18 solid-phase **extn** . column. After concn., the **terpenoids** are detd. by HPLC on a C18 column with MeOH-H₂O (33:67) as eluent and refractive index detection. Benzyl alc. is used as an internal std. The recovery of the method is 95%. The reproducibility is dependent on the concn. and varies from 2 to 15%. The min. concn. that can be detd. in **leaves** is 10 .mu.g of **terpenoid/g** of **dry leaves**. With a small modification the method can be used equally well for phytopharmaceuticals. Several **ginkgo** medicines were investigated and the total concn. of **terpenoids** was found to vary by a factor 18. The concn. in **leaves** varied by a factor 40.
 ST **bilobalide ginkgolide** detn **Ginkgo** HPLC;
 chromatog liq **bilobalide ginkgolide Ginkgo**
 IT **Ginkgo biloba**
 (bilobalide and **ginkgolides** detn. in leaves
 of, by HPLC)
 IT Plant analysis
 (bilobalide and **ginkgolides** detn. in **Ginkgo**
biloba leaves by HPLC in)
 IT Diterpenes and Diterpenoids
 RL: ANST (Analytical study)
 (bilobalide and **ginkgolides**, detn. of, in
Ginkgo biloba leaves by HPLC)
 IT Chromatography, column and liquid
 (high-performance, **ginkgolides** detn. in **Ginkgo**
biloba leaves by)
 IT 15291-75-5, **Ginkgolide A** 15291-76-6,
Ginkgolide C 15291-77-7, **Ginkgolide B**
 33570-04-6, **Bilobalide** 107438-79-9,

Ginkgolide J

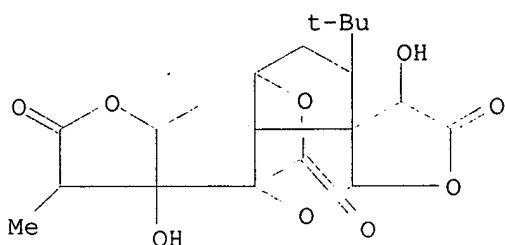
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, in *Ginkgo biloba* leaves, by
HPLC)

IT 15291-75-5, Ginkgolide A 15291-76-6,
Ginkgolide C 15291-77-7, Ginkgolide B
33570-04-6, Bilobalide 107438-79-9,
Ginkgolide J

RL: ANT (Analyte); ANST (Analytical study)
(detn. of, in *Ginkgo biloba* leaves, by
HPLC)

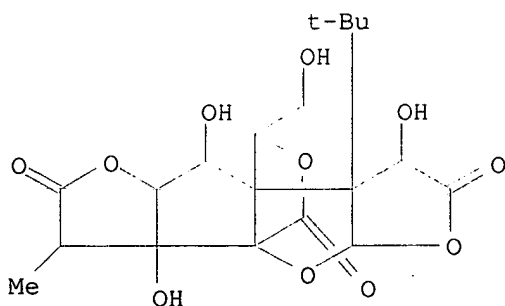
RN 15291-75-5 HCAPLUS

CN 9H-1, 7a-(Epoxyethano)-1H, 6aH-cyclopenta[c]furo[2,3-
b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,
3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-,
(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)



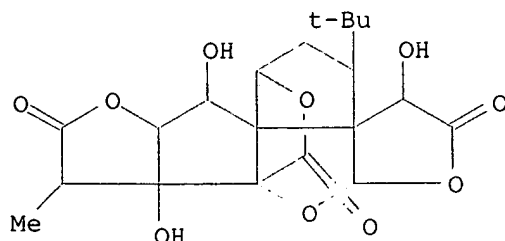
RN 15291-76-6 HCAPLUS

CN 9H-1, 7a-(Epoxyethano)-1H, 6aH-cyclopenta[c]furo[2,3-
b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,
3-(1,1-dimethylethyl)hexahydro-2,4,7b,11-tetrahydroxy-8-methyl-,
(1S,2R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)

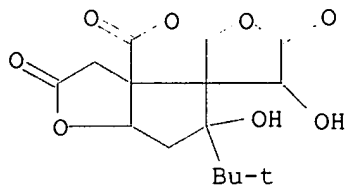


RN 15291-77-7 HCAPLUS

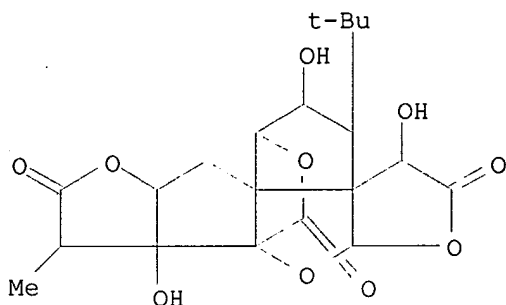
CN 9H-1, 7a-(Epoxyethano)-1H, 6aH-cyclopenta[c]furo[2,3-
b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,
3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-,
(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)



RN 33570-04-6 HCAPLUS
 CN 4H,5aH,9H-Furo[2,3-b]furo[3',2':2,3]cyclopenta[1,2-c]furan-2,4,7(3H,8H)-trione, 9-(1,1-dimethylethyl)-10,10a-dihydro-8,9-dihydroxy-, (3aS,5aR,8R,8aS,9R,10aS)- (9CI) (CA INDEX NAME)



RN 107438-79-9 HCAPLUS
 CN 9H-1,7a-(Epoxyethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-2,4,7b-trihydroxy-8-methyl-, (1S,2R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)



L65 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2001 ACS
 AN 1991:150165 HCAPLUS
 DN 114:150165
 TI A method of isolating therapeutic **ginkgolides** from the **leaves** of the **ginkgo** tree
 IN Kwak, Wie Jong; Park, Hwa Kun; Oh, Key Bong
 PA Sunkyoung Industries, Ltd., S. Korea
 SO Eur. Pat. Appl., 6 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM C07D493-22
 ICI C07D493-22, C07D307-00
 CC 63-4 (Pharmaceuticals)
 Section cross-reference(s): 11

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 402925	A2	19901219	EP 1990-111246	19900614 <--
	EP 402925	A3	19920108		
	EP 402925	B1	19970924		
	R: BE, DE, FR				
	JP 03024084	A2	19910201	JP 1990-155552	19900615 <--
	JP 2511558	B2	19960626		
	US 5089636	A	19920218	US 1990-539424	19900615 <--
PRAI	KR 1989-8340		19890616		<--

AB **Ginkgolides** as therapeutic agents are **extd.** from **ginkgo leaves** at high yields. The aq. **ext.** was adjusted to pH 1-3, and treated with a no. of org. solvents.

Ginkgolides (90 g) were isolated from 10 kg of pulverized dry leaves. Ginkgolide A, B, and C were characterized. No therapeutic data are given in examples.

ST ginkgo leaf ext ginkgolide

IT Ginkgo

(leaves, ginkgolide extn. from)

IT 15291-75-5, Ginkgolide A 15291-76-6, Ginkgolide C 15291-77-7, Ginkgolide B

RL: PROC (Process)

(extn. of, from ginkgo leaves)

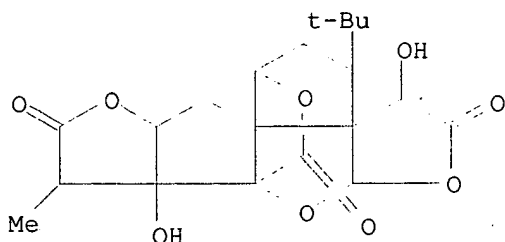
IT 15291-75-5, Ginkgolide A 15291-76-6, Ginkgolide C 15291-77-7, Ginkgolide B

RL: PROC (Process)

(extn. of, from ginkgo leaves)

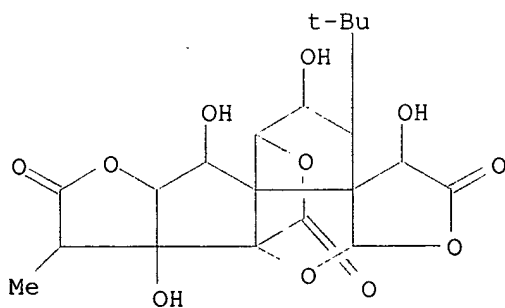
RN 15291-75-5 HCAPLUS

CN 9H-1,7a-(Epoxy-methano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)-(9CI) (CA INDEX NAME)



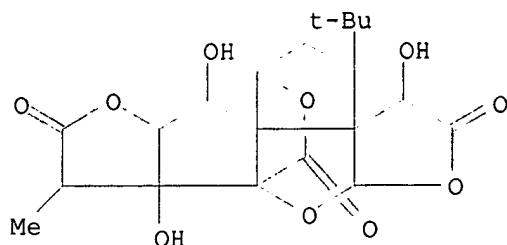
RN 15291-76-6 HCAPLUS

CN 9H-1,7a-(Epoxy-methano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-2,4,7b,11-tetrahydroxy-8-methyl-, (1S,2R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)-(9CI) (CA INDEX NAME)



RN 15291-77-7 HCAPLUS

CN 9H-1,7a-(Epoxy-methano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)-(9CI) (CA INDEX NAME)



L65 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1991:88633 HCAPLUS

DN 114:88633

TI **Extraction of tharapeutic flavons from ginkgo leaves**

IN Matsumoto, Takeshi

PA Daicel Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-00

ICS A23L001-30; A61K035-78

ICA A23L001-212

CC 63-4 (Pharmaceuticals)

Section cross-reference(s): 11, 17, 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02193907	A2	19900731	JP 1989-10772	19890119 <--
AB	Dried ginkgo leaves are treated with e.g. 30-45% EtOH to give an ext. contg. therapeutic biflavones, terpenes , and flavone glycosides . Harmful salicylates are nondetectable. The prepns. also can be used in manufg. cosmetics and foods.				
ST	ginkgo biflavone terpene extn;				
	flavone glycoside extn ginkgo				
IT	Terpenes and Terpenoids , biological studies				
	RL: PROC (Process)				
	(extn. of, from ginkgo leaves)				
IT	Ginkgo				
	(leaves, therapeutic biflavone terpene and flavone glycoside extn. from)				
IT	Flavonoids				
	RL: PROC (Process)				
	(bi-, oxo, extn. of, from ginkgo leaves)				
IT	Glycosides				
	RL: PROC (Process)				
	(flavonoid, oxo, extn. of, from ginkgo leaves)				

L65 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1989:540485 HCAPLUS

DN 111:140485

TI **Anti-inflammatory pharmaceuticals containing Ginkgo biloba extracts or ginkgolides and nonsteroidal inflammation inhibitors**

IN Bauer, Johann

PA Oxo Chemie G.m.b.H., Fed. Rep. Ger.

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM A61K035-78
 ICS A61K031-70; A61K031-60; A61K031-195; A61K031-42; A61K031-405;
 @@@@@@@-@@@; A61K031-505; A61K031-10; A61K031-415; A61K031-59;
 A61K031-54; A61K031-52; A61K031-725; A61K031-48

CC 63-6 (Pharmaceuticals)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8806889	A1	19880922	WO 1988-DE132	19880309 <--
	W: JP, US				
	DE 3707532	A1	19890309	DE 1987-3707532	19870309 <--
	DE 3707532	C2	19980528		
	EP 293563	A1	19881207	EP 1988-103748	19880309 <--
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 01502983	T2	19891012	JP 1988-502181	19880309 <--
PRAI	DE 1987-3707532		19870309 <--		
	WO 1988-DE132		19880309 <--		
OS	MARPAT 111:140485				
AB	Pharmaceuticals contain Ginkgo biloba ext. or .gtoreq.1 ginkgolides and .gtoreq.1 inflammation inhibitors. A patient suffering from third degree burns were treated with an infusion contg. 10 mg ginkgo flavone glycosides , 500 mg sorbitol, 0.450 g DL-lysine monoacetyl salicylate, 0.5 g glycine, and 150 mg pentoxifylline. Pain subsided 10 min after begining of the treatment, a glaze-like scab formed that remained dry and free of infection.				
ST	inflammation inhibitor Ginkgo ext ; burn inflammation				
IT	Ginkgo ext				
IT	Ginkgo biloba (exts., pharmaceuticals contg. nonsteroidal inflammation inhibitors and)				
IT	Burn Sepsis and Septicemia Shock Sunburn and Suntan (treatment of, with antiinflammatory pharmaceuticals contg. Ginkgo biloba exts. or ginkgolides and nonsteroidal inflammation inhibitors)				
IT	Inflammation inhibitors (Ginkgo biloba exts. and ginkgolides)				
IT	Muscle, disease or disorder (ischemia, treatment of, with antiinflammatory pharmaceuticals contg. Ginkgo biloba exts. or ginkgolides and nonsteroidal inflammation inhibitors)				
IT	Pancreas, disease or disorder (pancreatitis, treatment of, with antiinflammatory pharmaceuticals contg. Ginkgo biloba exts. or ginkgolides and nonsteroidal inflammation inhibitors)				
IT	50-78-2 69-89-6D, Xanthine, derivs. 129-20-4 3583-64-0, Bumadizone 4985-25-5, Ranoroc 5104-49-4, Flurbiprofen 6493-05-6 13539-59-8, Azapropazone 15307-86-5, Diclofenac 15687-27-1 17449-96-6, Perclusone 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22494-42-4 22760-18-5 26171-23-3, Tolmetin 27470-51-5, Suxibuzone 31793-07-4, Pirprofen 31842-01-0, Indoprofen 31879-05-7, Fenoprofen 33005-95-7, Tiaprofenic acid 33369-31-2, Zomepirac 36322-90-4 36330-85-5, Fenbufen 38194-50-2, Sulindac 49627-27-2, Sulindac sulfide 51234-28-7, Benoxaprofen 51317-25-0, Biphenylacetic acid 53716-49-7, Carprofen 53808-88-1 62952-06-1 122694-36-4D, 1H-Indeneacetic acid, derivs. RL: BIOL (Biological study) (antiinflammatory pharmaceuticals contg. Ginkgo biloba exts. and)				

DN 111:102599
TI Studies on the **extraction** of active components in **Ginkgo biloba leaves** by enzyme treatment (I)
AU Kim, Bo Young; Lee, Chang Gurl; Whang, Wan Kyunn; Huh, Jae Doo
CS Cent. Res. Inst., Kwang Dong Pharm. Co. Ltd., Seoul, 152-053, S. Korea
SO Saengyak Hakhoechi (1989), 20(1), 43-7
CODEN: SYHJAM; ISSN: 0253-3073
DT Journal
LA Korean
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 7
AB An attempt was made to increase the yield of **extn.** of **ginkgo flavone glycosides** from leaves of *G. biloba* by treatment with cellulase C and macerating enzymes. The yield of **dried ext.** and its **ginkgo flavonol** contents, when treated only with cellulase C, were 1.99 and 0.38%, resp. The content of **ginkgo flavone glycosides** in the **dried exts.** was 25.28%. By treatment with a mixt. of 3 enzymes, cellulase C, cellulase NC, and macerosin (1:1:2), the yield of the **dried ext.**, **ginkgo flavonols** as well as their **glycosides** were 2.48, 0.48, and 24.16%, resp.
ST **Ginkgo leaf flavone glycoside** enzyme
IT **Ginkgo biloba**
(**flavone glycosides** of leaf **exts**
. of, enzymes in **extn.** method effect on)
IT **Flavonoids**
RL: BIOL (Biological study)
(of **Ginkgo biloba leaf exts.**,
enzymes in **extn.** method effect on)
IT **Glycosides**
RL: BIOL (Biological study)
(**flavone**, of **Ginkgo biloba leaf**
exts., enzymes in **extn.** method effect on)
IT Enzymes
RL: BIOL (Biological study)
(plant tissue-macerating, in **Ginkgo biloba**
leaf extn., compn. in relation to)
IT 9012-54-8, Cellulase
RL: BIOL (Biological study)
(-C, AND -NC, in **Ginkgo biloba leaf**
extn., compn. in relation to)
IT 117-39-5 480-19-3 520-18-3
RL: BIOL (Biological study)
(of **Ginkgo biloba leaf exts.**,
enzymes in **extn.** method effect on)

L65 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2001 ACS
AN 1988:486084 HCAPLUS
DN 109:86084
TI Pharmacology of natural compounds. I. Smooth muscle relaxant activity induced by a **Ginkgo biloba L. extract** on guinea pig trachea
AU Puglisi, L.; Salvadori, S.; Gabrielli, G.; Pasargiklian, R.
CS Inst. Pharmacol. Sci., Univ. Milan, Milan, I-20133, Italy
SO Pharmacol. Res. Commun. (1988), 20(7), 573-89
CODEN: PLRCAT; ISSN: 0031-6989
DT Journal
LA English
CC 1-9 (Pharmacology)
AB A standardized **ext.** of **dried green leaves** of **Ginkgo biloba ext.** contg. **flavonol glycosides** induced a concn.-dependent relaxation of guinea-pig trachea in vitro and antagonized in vivo bronchoconstriction induced by various agonists. The action of the **ext.** appears to be mediated

partially by an interaction with the eicosanoid system particularly through specific stimulation of PGE2 biosynthesis and partially by .beta.-adrenoceptor activation. The relaxation of guinea-pig trachea induced by the **ext.** was antagonized by indomethacin, ETYA, and sotalol. The concn.-response curves obtained with tracheal preps. from reserpinized guinea pigs and those obtained in the presence of the glutathione depletor 1-chloro-2,4-dinitrobenzene, were modified in a similar manner confirming that the **ext.** can act on both adrenergic and prostaglandinergic systems.

ST **Ginkgo ext** bronchodilation mechanism prostaglandin;
glycoside flavonol Ginkgo ext
 bronchodilation prostaglandin
 IT Prostaglandins
 RL: BIOL (Biological study)
 (bronchodilating effect of **Ginkgo biloba**
leaves ext. in relation to)
 IT **Ginkgo biloba**
 (**ext.** of **leaves** of, bronchodilation effect of,
 mechanism of)
 IT Bronchi
 (**exts.** of **Ginkgo biloba** dilating effect
 on, mechanism of)
 IT **Glycosides**
 RL: BAC (Biological activity or effector, except adverse); BIOL
 (Biological study)
 (**flavonoid**, of **Ginkgo leaves ext**
 ., bronchodilating effect of, mechanism of)

L65. ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2001 ACS
 AN 1973:133641 HCAPLUS
 DN 78:133641
 TI Recovery of vasoactive drugs from the **leaves** of **Ginkgo**
biloba
 IN Schwabe, Willmar; Kloss, Peter
 PA **Schwabe, Dr. Willmar, G.m.b.H.**
 SO Ger., 4 pp.
 CODEN: GWXXAW

DT Patent
 LA German
 IC A61K
 CC 11-1 (Plant Biochemistry)
 Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1767098	A	19720531	DE 1967-1767098	19680329 <--
	DE 1767098	C2	19730104		
	FR 2007352	A5	19700113	FR 1969-9278	19690328 <--
PRAI	DE 1967-1767098		19680329	<--	

AB A **flavonoid**-contg. medicament with vasoactive properties is
extd. from fresh or **dried green leaves** of G.
biloba with an aq. lower aliphatic ketone or alc. at 40-100.degree., the
ext. reextd. with a halogenated lower aliphatic hydrocarbon at
 15-50.degree. and the **ext.** evapd. at reduced pressure. The
 powd. product may be taken up in H2O and adjusted to pH 7.5 with aq.
 alkali hydroxide, dild. with 4% sorbitol, and the soln. sterilized to give
 an injectable soln.

ST Ginko **flavonoid** drug **extn**
 IT Blood vessel
 (**Ginkgo biloba** flavonoids affecting)
 IT **Flavonoids**
 RL: BIOL (Biological study)
 (as vasoactive drug, from **Ginkgo biloba**)
 IT **Ginkgo biloba**
 (vasoactive drugs from **leaves** of)

L65 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1933:2533 HCAPLUS

DN 27:2533

OREF 27:303e-h

TI Constituents of *Ginkgo biloba* L. leaves. I

AU Furukawa, Shu

SO Sci. Papers Inst. Phys. Chem. Research Tokyo (1932), 19, 27-38

DT Journal

LA Unavailable

CC 10 (Organic Chemistry)

AB The powder (1 kg.) from air-dried leaves of *Ginkgo biloba* L. was extd. with 3 kg. of boiling 95% EtOH, the ext. was distd. to remove EtOH, and the brown residue was treated with hot H₂O. The H₂O-sol. portion was extd. with Et₂O and from this ext. substance I crystd. The H₂O-insol. portion when treated with Et₂O gave 2 fractions, one (a) sol., the other (b) insol. in Et₂O. The Et₂O soln. of a was treated with 10% Na₂CO₃ and neutralized with HCl; from the ppts. thus obtained, substance II was isolated. The remaining Et₂O soln. was treated with aq. KOH, concd. by distn., and left in an ice chest for several weeks. The crystals (III) which sepd. were filtered off; the oily matter remaining was sapond. with aq. KOH. From the unsaponifiable portion substance IV was obtained. Substance V was isolated from the Et₂O-insol. fraction (b). I, C₁₁H₁₄O₆. H₂O, m. 325.degree. (decompn.), [.alpha.]D₁₉ -54.8.degree. (in EtOH). Its reactions indicate a lactone ring in its structure. Di-Ac deriv., m. 290-2.degree., [.alpha.]D₂₂ -103.degree. (in EtOH). Hydrolysis of I with 33% KOH and addn. of H₂SO₄ gave a HO acid whose Ag salt was prepd. With CH₂N₂ in MeOH, I gave a non-cryst. mono-Me ether, m. 215.degree. (approx.). II, C₁₆H₁₂O₅ H₂O, yellow, m. 238-40.degree.. Reduced with Mg and HCl in EtOH, it gave an orange-red color; with FeCl₃ its alc. soln. turned green. By Zeisel's method II gave a MeO value. Di-Ac deriv., m. 226-8.degree.; desmethyl deriv., does not m. below 330.degree.; di-Me deriv., m. 225-7.degree., crystals with 1 H₂O. When fused with KOH at 180-200.degree. II gave only p-HOC₆H₄CO₂H. III, C₂₉H₆₀O, m. 82.5-83.degree.. Ac deriv., m. 43.5-44.degree.. Oxidized by CrO₃ in AcOH III gave a ketone, C₂₉H₅₈O, m. 74-4.5.degree., from which an oxime, m. 50-1.degree., was obtained. III was identified as ginnol, whose compn. is therefore C₂₉H₆₀O instead of C₂₇H₅₆O as given previously (C. A. 23, 382). IV, m. 138-9.degree., was identified as sitosterol. Ac deriv., m. 127.5-28.degree.. V, C₃₃H₅₆O₆, m. 296.degree. (decompn.) and gave both the Liebermann and the Hess color reactions. It was identified as sitosterol d-glucoside. Tetra-Ac deriv., m. 169-70.degree..

L65 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1929:16419 HCAPLUS

DN 23:16419

OREF 23:1930f-i,1931a

TI Constituents of *Ginkgo biloba* L. leaves. I

AU Furukawa, Shu

SO Bull. Inst. Phys. Chem. Research Tokyo (1929), 8, 62-74

From: Abstracts 2, 5-7

DT Journal

LA Unavailable

CC 11D (Biological Chemistry: Botany)

GI For diagram(s), see printed CA Issue.

AB The maidenhair tree, *Ginkgo biloba*

L., was investigated with a view to obtain components with insecticidal properties and yellow coloring matters from the leaves. The powder obtained from air-dried leaves was extd. with boiling alc. The alc. soln. was boiled, and the remaining resinous matter extracted as follows, yielding 5 components called A, B, C, D and E. Substance A, C₁₁H₁₂O₄.2H₂O, seps. from EtOH in colorless plates, m. 325.degree. (decompn.); Ac deriv., m. 290-2.degree. (from C₆M₅). When treated with a MeOH soln. of diazomethane, it gave a

monomethyl ether, which was not further investigated. A hydroxy acid, whose Ag salt and Ac deriv. were confirmed by analysis, was obtained by heating the compd. with an excess of KOH on the water-bath. This fact shows that the compd. has evidently a **lactone** ring. Substance B, C₁₀H₁₂O₄. 1/2 H₂O, m. 240.degree. (from MeOH). When reduced with Mg and HCl in EtOH soln. in the presence of Hg, it gives a red coloration and is, therefore, considered as a homolog of **flavone** or flaconol. The tri-Ac deriv. m. 170-1.degree.; di-Me deriv., m. 224-6.degree.. When fused with excess KOH, it gives p-hydroxybenzoic acid and a substance that seems to be a monomethyl ester of trihydroxybenzoic acid. C is regarded as a secondary alc., C₁₇H₁₄O, m. 80-80.5.degree.; Ac deriv., m. 43.5-44.degree.; ketone m. 73-4.degree. and ketoxime, m. 49-50.degree.. It is probably identical with ginnol, which was obtained from the fruitage of the plant. D, after recrystn. from EtOH, m. 240-1.degree.. An AcOH soln. of this substance gives a blue coloration by the Liebermann reaction. E, C₂₂H₄₉O₄, m. 296.degree. (decompn.); di-Ac deriv., m. 169-70.degree., crystallizes from EtOH with a silky luster.

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L115 ANSWER 1 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-117739 [11] WPIX
DNC C2000-036253
TI Water-soluble dry plant extracts, useful in
medicines, cosmetics or dietetic foods.
DC B04 D13 D21
IN GRETHLEIN, E; OSCHMANN, R
PA (SCHW-N) SCHWABE GMBH & CO WILLMAR
CYC 23
PI DE 19829516 A1 20000105 (200011)* 7p A23L001-221
WO 2000001397 A1 20000113 (200011) DE A61K035-78 <--
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA JP US
AU 9954069 A 20000124 (200027) A61K035-78 <--
EP 1089748 A1 20010411 (200121) DE A61K035-78 <--
R: AT BE CH DE ES FR GB IT LI NL
ADT DE 19829516 A1 DE 1998-19829516 19980702; WO 2000001397 A1 WO 1999-DE1812
19990619; AU 9954069 A AU 1999-54069 19990619; EP 1089748 A1 EP
1999-939923 19990619, WO 1999-DE1812 19990619
FDT AU 9954069 A Based on WO 200001397; EP 1089748 A1 Based on WO 200001397
PRAI DE 1998-19829516 19980702
IC ICM A23L001-221; A61K035-78
ICS A23L001-00; A23L001-30; A61K007-00; A61K007-48; A61K031-365;
A61K031-70
AB DE 19829516 A UPAB: 20000301

NOVELTY - New water-soluble, native dry extracts (I) of plant parts, especially **Ginkgo biloba leaves**, consist entirely of contents of the plant parts and are free from **solubilizers** and galenic auxiliaries.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for the preparation of (I).

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - (I) are used for the preparation of medicines, cosmetics and/or dietetic foods (all claimed). No details of specific applications are given.

ADVANTAGE - (I) is completely water-soluble; has a high content of the relevant active components (specifically **terpenoids** and **flavone glycosides** in the case of **Ginkgo biloba leaf extracts**); is free of additives (which could cause problems such as complexing and inhibition of release of ginkgolides); can be prepared simply and inexpensively; and specifically may have higher percentage content of **terpene lactones** and **flavone glycosides** than the crude drug (claimed).

Dwg.0/1

FS CPI

FA AB; DCN

MC CPI: B04-A10B; B06-A01; B14-E12; B14-R01; D03-H01T2; D08-B

TECH UPTX: 20000301

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred **Extract**: (I) is:

(i) a **dried primary extract** (crude **extract**);
 (ii) a **dry extract** which has been partially purified by removal of **extraction** solvents and components which precipitate from aqueous solution in the cold; or
 (iii) a **dry extract** which has been purified as in (b) and further purified by removal of unwanted components by precipitation reactions, adsorption and desorption, **extraction** with butanol or other purification methods.
 Specifically (I) contains (by weight) at least 20 % **flavone glycosides**, at least 5 % **terpene lactones** and at most 5 ppm **ginkgolic acids**; or at least 22-27 % **flavone glycosides**, at least 5-7 % **terpene lactones**, at least 2.8-3.4 % **ginkgolides A, B and C**, at least 2.6-3.2% **bilobalides** and at most 5 ppm **ginkgolic acids**.

Preparation: Claimed preparation of (I) involves:

(a) preparing a liquid aqueous alcoholic **extract** or **dry extract** by conventional methods;
 (b) taking up the **extract** (if **dry**) in water and/or organic solvent, preferably in aqueous alcohol;
 (c) subjecting the (preferably aqueous alcoholic) **extract** solution to ultrafiltration through a filter having an average pore size of 2000-10000 Daltons; and
 (d) separating the organic solvent(s) and optionally **drying** the ultrafiltrate.

Preferably stage (a) involves obtaining a crude **extract** by **extracting** the plant parts with aqueous alcohol or aqueous ketone, removing the **extraction** solvent, removing unwanted (specifically lipophilic) components by precipitation using addition of water and cooling, and further purifying to remove unwanted components and enrich the desired components (by precipitation reactions, adsorption and desorption, **extraction** with butanol or other purification methods), removing the solvent(s) and **drying**.

L115 ANSWER 2 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2000-116727 [10] WPIX

DNC C2000-035698

TI **Extraction** method for isolating compounds from vegetable material with therapeutic and cosmetic properties .

DC B04 D21

IN RUIJTEN, H M

PA (XENO-N) XENOBIOSIS

CYC 85

PI WO 9965504 A1 19991223 (200010)* EN 11p A61K035-78 <--
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
 OA PT SD SE SL SZ UG ZW
 W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
 GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
 MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
 UA UG US UZ VN YU ZW

NL 1009437 C2 19991221 (200012) A61K035-78 <--

AU 9946576 A 20000105 (200024) A61K035-78 <--

EP 1087780 A1 20010404 (200120) EN A61K035-78 <--

R: AT BE CH DE DK ES FI FR GB IT LI PT SE

KR 2001052992 A 20010625 (200173) A61K035-78 <--

ADT WO 9965504 A1 WO 1999-NL379 19990618; NL 1009437 C2 NL 1998-1009437
 19980618; AU 9946576 A AU 1999-46576 19990618; EP 1087780 A1 EP
 1999-929944 19990618, WO 1999-NL379 19990618; KR 2001052992 A KR
 2000-714387 20001218

FDT AU 9946576 A Based on WO 9965504; EP 1087780 A1 Based on WO 9965504

PRAI NL 1998-1009437 19980618

IC ICM A61K035-78

ICS A61K031-35; A61K031-48; B01D011-02

AB WO 9965504 A UPAB: 20000228

NOVELTY - **Extracting** a compound (I) from vegetable material (II) comprising treatment of (II) with a liquified gas, especially liquid nitrogen, to reduce its size prior to **extraction** with a solvent and removal of the solid matter from the solvent containing (I) is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for pharmaceutical (III) and cosmetic (IV) compositions comprising (I) obtained by the new method.

USE - The method is useful for **extraction** of water soluble actives from vegetable material, especially from the **ginko** tree or *Huperzia serrata*, to obtain (III) and (IV), useful for the treatment of e.g. Alzheimer's disease and patients with symptoms caused by prolonged contact with organic chemicals, and for maintaining the suppleness of the skin respectively.

ADVANTAGE - As the method employs fresh herbs and a shortened **extraction** time, the yield of the active agents is improved.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-A08; B04-A09; B04-A10; B14-J01A4;
 B14-R01; D08-B09

TECH UPTX: 20000228

TECHNOLOGY FOCUS - BIOLOGY - Preferred Vegetable Material: (II) is preferably fresh **leaves** obtained from **Ginkgo biloba** (the **ginko** tree) or *Huperzia serrata*. **Ginko** material is selected from a 1-15, preferably 5-year old tree.

Preferred Method: After reduction of the size of (II), (II) may be treated with enzymes to enhance breakdown of the cell walls. The solvent used is preferably water with a pH of 4-7 and **extraction** is performed for a maximum of 3 hours at a temperature of 10-60degreesC, preferably 20-40degreesC. The **extract** obtained is preferably subjected to microfiltration, and sprayed or freeze **dried**. Optionally the initial solvent is removed and the residue **extracted** with a further solvent.

L115 ANSWER 3 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2000-089238 [08] WPIX

DNC C2000-024963

TI Cosmetic composition with synergistic antiradical effect useful for preventing the aging of the skin and hair due to e.g. UV rays.

DC A96 D16 D21

IN FRITSCH, M; VACHER, A; FRISTSCH, M; FRITSCH, M C; VACHER, A M

PA (LANA-N) LANATECH LAB NATURE & TECH; (LANA-N) LANATECH LAB NATURE & TECH

SARL
CYC 27
PI EP 968709 A1 20000105 (200008)* FR 13p A61K007-48
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI
FR 2780647 A1 20000107 (200010) A61K007-48
ES 2140368 T1 20000301 (200018) A61K007-48
CA 2276632 A1 20000103 (200025) EN A61K007-40
US 6231877 B1 20010515 (200129) A61K006-00
ADT EP 968709 A1 EP 1999-401508 19990617; FR 2780647 A1 FR 1998-8720 19980703;
ES 2140368 T1 EP 1999-401508 19990617; CA 2276632 A1 CA 1999-2276632
19990630; US 6231877 B1 US 1999-339950 19990625
FDT ES 2140368 T1 Based on EP 968709
PRAI FR 1998-8720 19980703
IC ICM A61K006-00; A61K007-40; A61K007-48
ICS A01N065-00; A61K007-00; A61K007-06; A61K007-075
AB EP 968709 A UPAB: 20000215
NOVELTY - A cosmetic composition for preventing the aging of the skin and
hair, with synergistic antiradical effects and comprising a chrysanthellum
extract, comprises a vegetable **extract** comprising
phenolic compounds, vegetable **extract** comprising carotenoids,
vegetable oil comprising tocopherols, natural or synthetic antioxidant
and/or an enzymatic system trapping the free radicals.
USE - The composition has a synergistic antiradical effect useful for
preventing the aging of the skin and hair due to e.g. UV rays.
ADVANTAGE - The chrysanthellum **extract** has a synergistic
effect especially with green tea.
Dwg.0/0
FS CPI
FA AB
MC CPI: A12-V04A; A12-V04C; D05-A02A; D08-B03; D08-B09A
TECH UPTX: 20000215
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The
composition comprises a chrysanthellum **extract** (0.0001-0.1 wt.
%) originated from chrysanthellum indicum, chrysanthellum americanum or
chrysanthellum procumbens. The vegetable **extract** comprising
phenolic compounds (preferably **flavonoid** and/or phenolic acid)
is originated from green tea, **Ginkgo biloba**, camomile,
brown seaweed (especially ascophyllum) and/or plants from Labiatae family
(e.g. rosemary, sage or thyme). The vegetable oil comprising tocopherols
is originated from wheat, soya and/or buckwheat shoots. The antioxidant is
cafeic acid, gallic acid, palmitate ascorbyl ascorbic acid, cinnamic acid,
nordihydroguaiaretic acid, uric acid, hesperetin, hesridin, lecithin,
quercetin, rosmarinic acid, rosmanol, carnosol, carnosic acid, vitamin
E, butyl-hydroxy-anisol, butyl-hydroxy-toluene, ethoxyquine, ferulic acid,
hydroquinone, tertibutyl hydroquinone, parahydroxyanisol, gallic acid
derivatives and/or tocopherol derivatives. The enzymatic systems comprise
superoxydismutase. The chrysanthellum **extract** and the other
vegetable **extract** are **dry extracts**, water
soluble fluid extracts, oily **extracts**,
dry extracts in solution. The chrysanthellum
extract, the other vegetable **extracts**, the antioxidants
and/or the enzymatic compounds are preferably encapsulated.
A preferred antiradical shampoo comprises (%): water (q.s.p. 100),
cocamidopropyl betaine (15-20), alkylether sulfates (10-15),
caprypyl/capryl glucoside (2-10), cocamide DEA (2-4), glycerin (1-5),
PEG-120 methyl glucose dioleate (1-5), perfume (0.2-1), preservative
(0.05-0.8), EDTA (0.05-0.1), **dry extract** of
Ginkgo biloba (0.0001-1) and **dry
extract** of chrysanthellum indicum (0.0001-0.1).
A preferred hair mask comprises (%): water (q.s.p. 100), PEG-6
stearate/ceteth-20/glyceryl stearate/steareth-20 (5-10), cetylic alcohol
(2-5), quaternium-80 (1-5), shea butter (1-5), mineral oils and emollient
esters (1-5), glycerin (1-5), dimethicone copolyol (1-3), perfume (0.1-1),
preservative (0.1-0.7), carbomer (0.05-0.5), triethanolamine (0.05-0.5),
dry extract of green tea (0.0001-1) and **dry**

extract of chrysanthellum indicum (0.0001-0.1).

A preferred protective day cream comprises (%): water (q.s.p. 100), ester emollients (10-15), glyceryl stearate and PEG-100 stearate (4-6), butylene glycol (2-5), wheat shoots oil (2-5), cetyl alcohol (1-5), dimethicone (1-4), polymethyl methacrylate (0.5-2), perfume (0.3-1), preservative (0.1-0.8), carbomer (0.05-0.5), triethanolamine (0.05-0.5), butyl hydroxy toluene (0.05-0.1) and **dry extract** of chrysanthellum indicum (0.0001-0.1) (all claimed).

L115 ANSWER 4 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2000-072544 [06] WPIX

DNC C2000-020731

TI Alcohol-free beverage for oral consumption having nutritionally beneficial substituent that stimulates psychological feedback.

DC B05 D13

IN KROTZER, R D

PA (ADAM-N) ADAMS FOOD LTD

CYC 86

PI WO 9961038 A1 19991202 (200006)* EN 61p A61K035-78 <--

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR
TT UA UG US UZ VN YU ZA ZW

AU 9942174 A 19991213 (200020) A61K035-78 <--

ADT WO 9961038 A1 WO 1999-US11886 19990528; AU 9942174 A AU 1999-42174
19990528

FDT AU 9942174 A Based on WO 9961038

PRAI US 1998-199432 19981125; US 1998-86984 19980529

IC ICM A61K035-78

ICS A23F005-00; A23G003-00; A23J001-00; A23L002-00; C12C003-00

AB WO 9961038 A UPAB: 20000203

NOVELTY - Composition for human consumption comprises a nutritionally beneficial substituent (A) and an additional substituent (B) that provides traditional psychological feedback and is present at an amount to provide a sensory psychological feedback.

DETAILED DESCRIPTION - Composition for human consumption comprises a nutritionally beneficial substituent (A) and an additional substituent (B) that provides traditional psychological feedback.

(A) comprises Adrenochrome Semicarbazone, 5-hydroxytryptophan, 5-fluoro-A-methyltryptamine, 5-fluoro-tryptophan, 6-fluorotryptophan, tryptophan, acetosalicylic acid, ibuprofen, acetaminophen, alfalfa, allocryptine, beta-carotene, calcium, caffeine, theophylline, theobromine, choline, chromium picolinate, chromium polynicotinate, diadzin, diadzein, damiana, turnera diffusa, dandelion, evening primrose oil, folic acid, gamma-aminobutyric acid (GABA), ginger, **ginkgo biloba**, ginseng, glutathione, cysteine, L-glutamine, glycine, N-acetylcysteine, L-cysteine and L-methionine, S-adenosylmethionine, green tea, guarana, hops, inositol, iron, kava kava, kombucha tea, kudzu, lobelia, glutamic acid, D-phenylalanine, DL-phenylalanine, L-tyrosine, lecithin, linoleic acid, gamma-linoleic acid, magnesium, milk thistle **extract** (silymarin), niacin, para-aminobenzoic acid (PABA), protopine, puerarin, pyridoxal-5-phosphate, selenium, **soluble** fiber, St. John's wort, taurine, sucrose, fructose, glucose, yellow dock, zinc and zinc picolinate or zinc polynicotinate.

(B) comprises caffeine or a caffeine equivalent, tryptophan, ephedra, cola, green tea **extract**, carbonic acid, phosphoric acid, citric acid, hops, cocoa, chocolate, anandamide, quinine, malic acid, a sweetener, a fruit juice or its **extract**, milk, vegetable juice or its **extract**, kudzu or 5-hydroxy-tryptophan.

INDEPENDENT CLAIMS are also included for the following:

(1) an aqueous composition containing kudzu in liquid form, tryptophan or its analogue, milk thistle or bioactive zinc dissolved or suspended in water and

(2) a composition for human consumption which comprises 2-5

substituents (A) or 2-5 substituents (C).

(C) comprises anandamide, 5-hydroxytryptophan, 5-fluoro-A-methyltryptamine, 5-fluorotryptophan, 6-fluorotryptophan, tryptophan, allocryptine, caffeine, theophylline, theobromine, California poppy, calcium, chromium picolinate, chromium polynicotinate, chicalote **extract**, cocoa, chocolate, Damiana (Turnera diffusa), DL-phenylalanine, ephedra, ephedrine, epinephrine, GABA, ginger, ginseng, L-glutamine, green tea, guarana, kava kava, lactuca virosa, L-tyrosine, lobelia, magnesium, maraba, protopine, pseudophedrine, pseudoepinephrine, pyridoxal-5-phosphate, serotonin, sucrose, fructose, glucose, high fructose corn syrup, red rice yeast or St. John's wort.

ACTIVITY - Antialcoholic; antidepressant; nootropic.

MECHANISM OF ACTION - None given.

USE - Used for individuals exhibiting the effects of alcohol or mood altering prescription or non prescription drugs (e.g. depressants, narcotics, hallucinogens and stimulants), as antioxidants, to improve and repair brain function (e.g. memory or learning), suppress appetite or alcohol desire, reverse alcohol related damage, alleviate stress, improve virility, improve or repair liver function and immune system responses, alleviate depression and improve or repair blood functions (e.g. oxygen transport, blood sugar level stabilizers, metabolite transport, detoxification and ion balance).

ADVANTAGE - The composition is formulated to give external sensory appeal such as taste, sight or smell and internal appeal directly to the brain. The composition provides multiple short and long term psychological feedback(s) to the consumer.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B03-B; B03-C; B03-D; B03-E; **B04-A10**; B06-D01; B14-E11;
D03-H01G; D03-H01T

TECH UPTX: 20000203

TECHNOLOGY FOCUS - FOOD - Preferred Composition: The composition is an alcohol-free beverage and also contains both at least each of substituents (C) or (D) that provides long or short term psychological feedback, respectively.

Substituent (D) which provides a short term sensation or warmth, tingling, excitement, tranquility and well-being, or a distinctive, intense, bitter or unusual taste comprises anandamide, alcohol enhancer, angelica root, balm, bitter orange (Aurantia pericarpium), bogbean, boldo, calamus, California poppy, capsicum, caraway, cayenne, chamomile, cinchona bark, quinine, chocolate, cinnamon, clove, cocoa, condurango, dandelion, elecampane, GABA, gentian, ginger, ginseng, holy thistle, hops, horehound, **dried** lemon peel (Citri pericardium), mugwort, unripe orange, peppermint, quassia, red sage, rosemary, star anise, thyme, tumeric, wormwood, yarrow or zinc.

The sweetener comprises fructose, high fructose corn syrup, sucrose, maltose, glucose, lactose, sorbitol, galactose, aspartame, saccharin, L-sugar or a cyclamate. Nutritionally beneficial substituent is kudzu, milk thistle or bioavailable zinc compound.

The fruit juice **extract** comprises a juice or **extract** from pineapple, grape, pear, banana, plum, cherry, peach, strawberry, blueberry, cranberry, blackberry, orange, grapefruit, lemon or lime.

L115 ANSWER 5 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1999-561849 [47] WPIX

DNC C1999-163780

TI Composition containing **extract** of Ginkgo

biloba leaves obtained using an improved method, useful for treating e.g. heart diseases such as angina and palpitation, and for impotency and psoriasis.

DC B04

IN GAO, Q; HUANG, X; JIN, X; SHAO, B; WANG, N; XIE, D; ZHANG, G; AN, Z G; DE LONG, X; NING, W; PING, S B; QI, G; SHENG, H X; WU, J X; GAO, O; HUANG, X S; JIN, X W; SHAO, B P; XIE, D L; ZHANG, G A

PA (SICM-N) SICMM SHANGHAI INST. CHINESE MATERIA MEDI; (XING-N) XINGLING SCI &

TECHNOLOGY & PHARM IND C; (ANZG-I) AN Z G; (DLON-I) DE LONG X; (NING-I) NING W; (PING-I) PING S B; (QIGG-I) QI G; (SHEN-I) SHENG H X; (WUJX-I) WU J X

CYC 84

PI WO 9947148 A1 19990923 (199947)* ZH 46p A61K035-78 <--
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
 OA PT SD SE SL SZ UG ZW
 W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
 GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
 MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
 UA UG UZ VN YU ZW

AU 9928247 A 19991011 (200008)

US 6030621 A 20000229 (200018)

A61K035-78 <--

GB 2352177 A 20010124 (200107)

A61K035-78 <--

US 6187314 B1 20010213 (200111)

A61K035-78 <--

CN 1292704 A 20010425 (200143)

A61K035-78 <--

ADT WO 9947148 A1 WO 1999-CN38 19990319; AU 9928247 A AU 1999-28247 19990319;
 US 6030621 A US 1998-44551 19980319; GB 2352177 A WO 1999-CN38 19990319,
 GB 2000-24213 20001003; US 6187314 B1 Div ex US 1998-44551 19980319, US
 1998-97058 19980612; CN 1292704 A CN 1999-803683 19990319

FDT AU 9928247 A Based on WO 9947148; GB 2352177 A Based on WO 9947148; US
 6187314 B1 Div ex US 6030621

PRAI US 1998-44551 19980319; US 1998-97058 19980612

IC ICM A61K035-78

ICS A01N043-04; A61K031-70; A61P009-10; C12Q001-00

AB WO 9947148 A UPAB: 19991116

NOVELTY - Composition comprises:

(a) 44-78% **flavonoids**;

(b) 2.5-10% **ginkgolides** A, B, C, J or their mixture;

(c) 2.5-10% **bilobalide**; and

(d) 0.1-5 ppm **ginkgolic acid**.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(i) drug compositions prepared using the above substances

extracted from Ginkgo biloba leaves;

and

(ii) a method for preparing the composition.

ACTIVITY - Antianginal; antilipemic; vasotropic; antipsoriatic;
 nootropic; neuroprotective; antiarteriosclerotic; antiarthritic;
 antiasthmatic; cardiant; auditory; analgesic; hypotensive;
 antiparkinsonian; antirheumatic; tuberculostatic.

USE - Useful as a drug, additive to food, drinks and cosmetics, and
 for treating various types of angina due to coronary disease, lowering
 blood cholesterol and triglycerides, reducing blood platelet
 agglutination, and for treating impotency, psoriasis and pigmentation. For
 improving ischemic electrocardiogram, with relief of angina and reduction
 of amount of nitroglycerin used, and relief of palpitation. For improving
 a patient's tolerance to exercise with extension of exercise
 sustainability and improvement on the interval between start of exercise
 and onset of angina as well as the 1 mm interval decrease between start of
 exercise to ST stage. Also for treating e.g. amnesia, senile dementia
 (Alzheimer disease), arteriosclerosis, arthritis, asthma, atherosclerosis,
 autism, coronary disease, deafness, dizziness, headache, high blood
 pressure, circulatory disorder, Parkinson's disease, renal dysfunction,
 rheumatism, filariasis, tuberculosis, tinnitus and vertigo.

ADVANTAGE - The **extraction** process is improved and is more
 effective than prior art methods.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-A08C2; **B04-A09A**; B14-A01B1; B14-C01; B14-C06; B14-C09;
 B14-D02A2; B14-F01B; B14-F01D; B14-F02B; B14-F04; B14-F07; B14-J01A4;
 B14-K01A; B14-N07; B14-N10; B14-N17C

TECH UPTX: 19991116

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The
flavonoids include **flavonols**, **flavanones** and
flavonol glycosides, particularly with 20-75%

flavonol glycosides, especially having a ratio of **flavonol glycosides** to **flavonols** (in terms of concentration) of 1-30:1. Preferably, the composition contains: (a') 44-78% **flavonoids** comprising **flavonol glycosides**; (b') 5-20% **lactones** including 2.5-10% **ginkgolides A, B, C, J** or their mixture and 2.5-10% **bilobalide**; (c') **flavonol glycosides** and **lactones** in a ratio of 3.5-4.5:1; and (d') 0.1-5 ppm **ginkgolic acid**. Especially, the composition comprises: (a'') not less than 44% **flavonoids**; (b'') not less than 6% **lactones**; and (c'') 0.1-5 (particularly 0.1-0.5) ppm **ginkgolic acid**. The drug compositions contain the **extract** from **Ginkgo biloba leaves**, and the plant is particularly artificially grown.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preparation: The composition is prepared by **extracting Ginkgo biloba leaf** by **drying the leaves**, pulverization, **extracting flavonoids** and **lactones** with water, 1-3C alcohols, acetone or their mixture by refluxing and separating the **extract** for concentrating at not more than 60degreesC to a density of 1.2-1.25, and isolation of the **flavonoids** and **lactones** by treatment with 2 or more resins. During **extraction**, a column containing a resin can be used which is a porous polymer, silica gel, alumina, polyamide, activated charcoal, cellulose acetate or dextran gel, or their mixture. The obtained **extract** is identified and quantitatively analysed using **solubility** tests, thin-layer chromatography with visualisation under UV, by spectrophotometry and high-performance liquid chromatography for **flavonols** hydrolyzed from the **flavonol glycosides** e.g. quercetin and kaempferol. The amounts of these substances and their ratios can thus be evaluated.

L115 ANSWER 6 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1999-458363 [38] WPIX
 DNC C1999-134572
 TI Infusing e.g. phytochemicals and nutraceutical into food products to give e.g. an infused pet treat.
 DC B07 C07 D13
 IN HIRSCHBERG, E
 PA (HIRS-I) HIRSCHBERG E
 CYC 84
 PI WO 9935917 A1 19990722 (199938)* EN 25p A23B007-08
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
 OA PT SD SE SZ UG ZW
 W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
 GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
 MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
 UA UG US UZ VN YU ZW
 AU 9925578 A 19990802 (199954) A23B007-08
 ADT WO 9935917 A1 WO 1999-US181 19990114; AU 9925578 A AU 1999-25578 19990114
 FDT AU 9925578 A Based on WO 9935917
 PRAI US 1998-71081P 19980115
 IC ICM A23B007-08
 ICS A23B007-16; A23L001-09; A23L001-29
 AB WO 9935917 A UPAB: 19990922
 NOVELTY - A method of infusing a composition (I) into a food product, comprises: (a) increasing brix of an osmotic dehydration solution containing food product over a period of time; and (b) incubating the food product with (I), thereby infusing (I) into the food product.
 DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of infusing a flavoring into a fruit or a vegetable, the method comprising:
 (a) soaking the fruit or vegetable in a solution of potassium sorbate, calcium lactate, citric acid, glycerol, and the flavoring for at

least three days;

- (b) removing 20% of the solution by weight each successive day;
- (c) replacing the removed solution with 77 deg. B brix HFCS until the brix of the solution reaches 65 deg. B;
- (d) rinsing the solution off the fruit or vegetable; and
- (e) **drying** the fruit or vegetable;

ACTIVITY - Cytostatic; cardiant; nootropic; neuroprotective; antiinflammatory.

USE - The methods allow infusion of compositions including phytochemicals, nutraceuticals such as vitamins, herbal **extracts** and medicinals into food products, e.g. juices, fruits, vegetables and meats. The resulting infused food products are consumable products which are helpful in alleviating dietary insufficiency and/or preventing or treating diseases such as cancer, heart disease, Alzheimer's disease etc. The food product may also include ground liver, chicken or salmon; apple, carrot or pet treat. E.g. prunes or prune juices may be infused with Chinese herbal medicine to form a mixture for treating or preventing irritable bowel syndrome.

ADVANTAGE - Prior art methods are unsatisfactory in terms of their ability to infuse nutrients into food products. They result in loss of phytochemicals, vitamins and minerals from the food resulting in a corresponding loss of nutritional value and decreasing the disease-preventative value of the food. The present methods provide improved methods of food preparation and storage, and also provide efficient mechanisms for infusing osmotically **dried** fruits, vegetables and other food products.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B03-L; **B04-A09; B04-A10**; B04-D01; B05-A01A;

B05-A01B; B06-A01; B07-D09; B10-A07; B10-C02; B10-E04C; C03-L;

C04-A09; C04-A10; C05-A01A; C05-A01B; C06-A01;

C07-D09; C10-A07; C10-C02; C10-E04C; D03-A04; D03-G; D03-H01G;

D03-H01T2; D03-H02B

TECH UPTX: 19990922

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred materials: (I) is a photochemical or nutraceutical selected from vitamins, minerals, isoflavoronals, lycopene, resveratrol, indocarbonals, anthocyanins, **soluble** fiber, high protein rice, and soy isolate. (I) comprises a flavor, or a color. The food product is a vegetable selected from carrot, and bell pepper, and the osmotic dehydration solution comprises a low dextrose and L-Carnitine. The food product is selected from fruit, fruit juice, vegetable, vegetable juice, ground liver, chicken, and salmon, apple or carrot, a prune or a prune slice, prune juice, and (I) comprises a herbal medicine. The fruit is selected from blueberry, strawberry, marionberry, and cranberry. At least one of anthocyanins, and vitamin C, is added to the solution.

Preferred method: The food product is pre-**dried** before infusing (I) into the food product. The solution comprises (I). The method comprises performing step (a) and step (b) separately or simultaneously, while varying the brix of the osmotic dehydration solution from 20 to 80 degreesB. The method comprises increasing the brix of the osmotic dehydration solution daily for a period of at least one week. Step (a) or step (b) is performed at room temperature. Step (a) or step (b) is performed at 50 degreesC, and the brix of the osmotic dehydration solution is 77 degreesB. The method further comprises stirring or circulating the osmotic dehydration solution, thereby increasing the rate of infusion of the composition into the food product. The food product comprises a strawberry, and the brix of the osmotic dehydration solution is 40 degreesB. The food product comprises a marionberry and the osmotic dehydration solution contains high fructose corn syrup (HFCS). The food product comprises fresh sliced carrot, and the brix of the osmotic dehydration solution is 77 degreesB and the method further comprises heating the osmotic dehydration solution containing HFCS, Saw Palmetto, and **Gingko Biloba**, and incubating the solution overnight. The method further comprises coating the food product with a

coating substance comprising gelatin, pectin, or starch to form a coated food product, and infusing the phytochemical into the coated food product. The osmotic dehydration solution comprises a dehydration solute selected from high fructose corn syrup, dextrin, starch, gelatin, pectin, juice concentrate, and soy isolate. The method further comprises heating and continuously circulating the dehydration solute and the food product through a tube or a pipe. The method comprises passing the dehydration solute and the food product over a perforated conveyor, and collecting the food product from it. The method further comprises pre-treating the food product by freeze-drying the food product to 10% or lower residual moisture. The food product comprises a sliced cranberry, and the osmotic dehydration solution contains the phytochemical and HFCS, and the brix of the osmotic dehydration solution is 77 degreesB. The method further comprises removing excess water by drying a mixture of the food product and the composition after incubation of the food product with the composition in step (b). The food product is a pet treat. (I) is a medicinal capable of providing a medical or dietary benefit to a human or to an animal. The food product may also be a fruit juice or vegetable juice, the composition a photochemical, and the method further comprises infusing the phytochemical into the fruit juice or vegetable juice and forming a solid or semisolid mixture. The product may form a trail mix containing at least two food products infused with phytochemicals admixed with high protein rice or a soy isolate. Pectin or gelatin may be added to the mixture, thereby forming a firm mass of material. The firm mass of material can be coated with a coating substance comprising gelatin, pectin, or starch.

L115 ANSWER 7 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1999-372169 [32] WPIX
 DNC C1999-110040
 TI **Gingko biloba leaf extract** - for
 production of medicament with less side effects.
 DC B04
 IN SCHWABE, K
 PA (SCHW-N) SCHWABE GMBH & CO WILLMAR
 CYC 22
 PI DE 19756848 A1 19990701 (199932)* 4p A61K035-78 <--
 WO 9932129 A1 19990701 (199933) DE
 RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
 W: CN JP KR US
 EP 1037646 A1 20000927 (200048) DE A61K035-78 <--
 R: DE FR GB IT
 KR 2000063097 A 20001025 (200124) A61K035-78 <--
 CN 1282252 A 20010131 (200131) A61K035-78 <--
 ADT DE 19756848 A1 DE 1997-19756848 19971219; WO 9932129 A1 WO 1998-DE3790
 19981218; EP 1037646 A1 EP 1998-966583 19981218, WO 1998-DE3790 19981218;
 KR 2000063097 A KR 2000-32649 20000614; CN 1282252 A CN 1998-812437
 19981218
 FDT EP 1037646 A1 Based on WO 9932129
 PRAI DE 1997-19756848 19971219
 IC ICM A61K035-78
 AB DE 19756848 A UPAB: 20010528
 NOVELTY - An **extract** (I) from the **leaves** of
Gingko biloba comprises (in wt.%): **flavonol**
glycoside (20-30); ginkgolide A, B, C and J (2.5-4.5);
bilobalid (2.0-4.0); alkyl phenol (at less than 10 ppm);
 proanthocyanidine (less than 10); 4'-O-methylpyridoxin (less than 50 ppm);
 and biflavone (less than 100 ppm). DETAILED DESCRIPTION - An INDEPENDENT
 CLAIM is also included for a medicament comprising (I).
 USE - For production of medicament.
 ADVANTAGE - (I) Comprises little 4'-O-methylpyridoxin and biflavones,
 which can become toxic and cause side effects.
 Dwg.0/0
 FS CPI
 FA AB; DCN
 MC CPI: B04-A10B

L115 ANSWER 8 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1999-311532 [26] WPIX

CR 1996-058279 [06]; 1997-178324 [16]; 1999-131189 [11]

DNC C1999-091920

TI Nutritional supplement compound.

DC B05 D13 D16

IN GIAMPAPA, V C

PA (LONG-N) LONGEVITY INST INT

CYC 1

PI US 5895652 A 19990420 (199926)* 9p A61K035-78 <--

ADT US 5895652 A CIP of US 1996-688267 19960729, US 1997-898090 19970723

PRAI US 1997-898090 19970723; US 1996-688267 19960729

IC ICM A61K035-78

ICS A23L001-222; A23L001-30; A61K038-43

AB US 5895652 A UPAB: 19990707

NOVELTY - Nutritional supplement comprising a morning, midday and evening comestible, is new.

DETAILED DESCRIPTION - The nutritional supplement comprises:

(i) a morning comestible comprising:

(A) an antioxidant mix comprising: (a) a vegetable complex including beta -carotene (25 000 IU), lycopene **extract** (300 mg), lutein (700 mg), broccoli (22:1 concentrate, 200 mg), cabbage (freeze **dried**, 500 mg), carrot powder (200 mg), and tomato powder (200 mg); (b) an ascorbate-citrus antioxidant complex including vitamin C (from calcium, magnesium, and niacinamide ascorbate, 1250 mg), vitamin C (ascorbic acid, 1250 mg), ascorbyl palmitate (fat **soluble**, 250 mg), acerola juice (300 mg), citrus bioflavonoids (250 mg), hesperidin complex (250 mg), and bromelain (15 mg); (c) a herbal antioxidant complex including grape seed **extract**, 95 % proanthocyanidin (20 mg), bilberry **extract**, 25 % anthocyanin (10 mg), and milk thistle **extract** (20 mg); (d) a B-complex including vitamin B1 (200 mg), B2 (50 mg), B3 (niacinamide, 100 mg, and niacin, 75 mg), B5 (600 mg), B6 (175 mg), B12 (100 mg), folate triglutarate (sic) (800 micro g), and biotin (200 micro g); (e) a vitamin-mineral antioxidant complex including vitamin E (50:50 mixture of synthetic:natural, 500 IU), vitamin A (5000 IU), selenium (selenate and selenomethione forms, both 50 micro g), zinc (20 mg, and succinate form, 15 mg); (f) an amino acid antioxidant complex including taurine (500 mg), n-acetyl-cysteine (NAC) (100 mg), and L-glutathione (15 mg); (g) a mineral complex including magnesium chloride (800 mg), magnesium aspartate (100 mg), magnesium succinate (100 mg), calcium citrate (500 mg), calcium stearate (250 mg), potassium aspartate (50 mg), potassium chloride (49 mg), vitamin D3 (300 IU), chromium (niacin bound and picolinate forms, both 50 micro g), molybdenum (125 mg), manganese (5 mg), and iodine (10 micro g); (h) a cholinergic complex including choline bitartrate (500 mg), phosphatidylcholine (150 mg), and inositol (250 mg); and (i) secondary antioxidants including dilaurylthiodipropionate (25 mg), thiodipropionic acid (25 mg);

(B) silymarin (81 mg);

(C) beta -carotene (25 000 IU);

(D) L-carnitine (600 mg);

(E) coenzyme Q10 (30 mg);

(F) dimethylaminoethanol (DMAE, **ginkgo bilboa** form, 100 mg);

(G) an essential fatty acid group including: (a) borage oil (400 mg); (b) fish oil (400 mg); (c) flax seed oil (400 mg); (d) docosahexaenoic (DHA, 100 mg); (e) alpha -linoic acid (ALA, 300 mg); and (f) Omega -3 oils (120 mg);

(H) ribonucleic acid (RNA, 500 mg);

(I) a daytime growth hormone formula including: (a) L-ornithine HCl (300 mg); and (b) L-tyrosine (500 mg);

(J) vitamin C (1000 mg);

(K) a vegetarian enzyme group including: (a) amylase (131 mg); (b) protease (131 mg); (c) lipase (15 mg); and (d) cellulase (5 mg);

(L) a chlorophyll complex including: (a) copper chlorophyllin (20 mg); (b) broccoli concentrate (22:1, 400 mg); (c) cabbage (freeze **dried**

, 300 mg); (d) parsley (100 mg); (e) peppermint (50 mg); (f) folate triglutamate (sic) (800 micro g); (g) lycopene **extract** 100 mg); (h) beta -carotene (5000 IU); and (i) lutein **extract** (200 mg);
 (M) a herbal stimulant group including: (a) mahwhang **extract** (167 mg); and (b) guta kola **extract** (500 mg);
 (N) chromium triphosphate (100 mg);
 (O) adenosine triphosphate (ATP, 60 mg);
 (P) acetyl-L-carnitine (250 mg);
 (Q) a blue-green algae group including: (a) Spirulina (1.25 ml); and (b) aphanizaomenon flos aquae (AFA, 1.25 ml); and
 (R) a glandular complex including pancreas, thymus, and adrenal **extracts**;
 (ii) a midday comestible comprising:
 (A) an antioxidant mix as in (iI);
 (B) an essential fatty acid group including all of (iG), with the exception of DHA, but including dimethylaminoethanol (100 mg);
 (C) RNA as in (iH);
 (D) proanthocyanadin (30 mg);
 (E) vitamin C as in (iJ);
 (F) ascorbyl palmitate (500 mg);
 (G) a vegetarian enzyme group as in (iK);
 (H) octa-cosanol;
 (I) choline/inositol (500 mg);
 (J) n-acetyl-carnitine (250 mg);
 (K) ATP as in (iO);
 (L) a blue-green algae group as in (iQ); and
 (M) n-acetyl glucosamine and glucosamine sulfate; and
 (iii) an evening comestible comprising:
 (A) an antioxidant mix as in (iI), but lacking magnesium aspartate;
 (B) L-carnitine as in (iD);
 (C) coenzyme Q10 as in (iE);
 (D) a vegetarian enzyme group as in (iK);
 (E) a chlorophyll complex as in (iL);
 (F) a blue-green algae group as in (iQ);
 (G) saw palmetto extract (60 mg);
 (H) melatonin (60 mg); and
 (I) glandular extracts as in (iR).

USE - The compositions are a nutritional supplement intended to supply all the nutrients lacking in a normal diet at specific times of the human biocycle to aid the proper metallization and function of the human body. The supplement especially utilized to deter the effects of otherwise normal aging.

FS CPI
 FA AB; DCN
 MC CPI: B03-L; **B04-A10**; B04-L05; B14-E11; D03-H01T; D05-A02
 TECH UPTX: 19990707

TECHNOLOGY FOCUS - FOOD - Preferred Supplement: The supplement further comprises enzymes and enzyme precursors that relate to the health of the digestive tract and the pH of the subject's **extra** and intracellular fluid matrices in within 6.45-7.45.

L115 ANSWER 9 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1999-302641 [25] WPIX

DNC C1999-088744

TI Clear herbal **extract** solution useful for encapsulation in a soft gelatin capsule.

DC A11 A25 A96 B04

IN LIN, J; OPPENHEIM, R C; TRUONG, H C

PA (SCHB) SCHERER HOLDINGS PTY LTD R P

CYC 83

PI WO 9920289 A1 19990429 (199925)* EN 29p A61K035-78 <--

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
 OA PT SD SE SZ UG ZW

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
 GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD
 MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA

UG US UZ VN YU ZW
 AU 9896162 A 19990510 (199938) A61K035-78 <--
 ADT WO 9920289 A1 WO 1998-AU878 19981022; AU 9896162 A AU 1998-96162 19981022
 FDT AU 9896162 A Based on WO 9920289
 PRAI AU 1997-9903 19971022

IC ICM A61K035-78
 ICS A61K009-08; A61K009-48
 AB WO 9920289 A UPAB: 19990630

NOVELTY - A clear herbal **extract** solution suitable for encapsulation in a soft gelatin capsule, which comprises:
 (i) a concentrated herbal **extract** (which is unsuitable by itself for direct encapsulation in a soft gelatin capsule); and
 (ii) a fill liquid, which is compatible with the herbal **extract** and is specific for dissolving the herbal **extract** to form a clear solution.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(i) a soft gelatin capsule containing a clear herbal solution; and
 (ii) a process for manufacturing a clear soft gelatin capsule, which comprises:

(1) combining a concentrated herbal **extract** and a fill liquid which is compatible with the herbal **extract**; and

(2) encapsulating the herbal **extract** in a soft gelatin capsule.

USE - The clear herbal **extract** solution is suitable for encapsulation in a soft gelatin capsule.

ADVANTAGE - It is possible to produce clear herbal **extracts** that are suitable for encapsulation in soft gelatin capsules and which also contain all the important active ingredients.

FS CPI

FA AB; DCN

MC CPI: A03-C01; A12-V01; B04-A10; B04-B01C1; B04-C03D

TECH UPTX: 19990630

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Materials: The concentrated herbal **extract** is preferably obtained by a cold pressing or **extraction** process and is a liquid or semisolid material. In particular, the concentrated herbal **extract** is **extracted** with a hydrophilic solvent (e.g. water, ethanol, methanol, acetone, ethyl acetate, glycerol, diethyl ether and/or propylene glycol). The fill liquid is hydrophilic, especially a polyethylene glycol having a molecular weight of from 300-8000, or a mixture of a polyethylene glycol with at least 1 other polyol (e.g. propylene glycol, glycerol or another polyethylene glycol, e.g. Macrogol 400) with a molecular weight 50-8000. The herbal **extract** is preferably globe artichoke, **Ginkgo biloba**, turmeric, soy isoflavone, hypericum, ginseng, Echinacea angustifolia, dong quai, black cohosh, epilobium, zizyphus and olive leaf. Alternatively, the concentrated herbal **extract** may be **extracted** with a hydrophobic solvent or cold pressing process. The hydrophobic solvent is an aliphatic hydrocarbon (especially hexane), an aromatic hydrocarbon (especially benzene or toluene) and/or liquid carbon dioxide. The fill liquid is then hydrophobic and selected from a vegetable oil, a vegetable oil derivative or a medium chain triglyceride. The vegetable oil is selected from almond oil, arachis oil, borage oil, canola oil, evening primrose oil, fractionated coconut oil, lecithin, linseed oil, maize oil, olive oil, rapeseed oil, rice bran oil, safflower oil, soya bean oil, spearmint oil, sunflower oil and/or wheat germ oil. The herbal **extract** is then selected from ginger and saw palmetto. The carrier material is selected from maltodextrin, dried glucose syrup or dicalcium phosphate. The shell of the capsule is either transparent, or colored to provide a clear colored shell. The capsule contains 1-1000 mg of active herbal **extract**. The concentrated herbal **extract** is selected from a concentrated **extract** of: Achillea millefolium (yarrow) herb, Agropyron repens (couch grass) root, Althaea officinalis (marshmallow) root, Angelica polymorpha (dong quai) root, Apium graveolens (celery) seed, Arctium lappa (burdock) root, Arctostaphylos uva-ursi (uva-ursi) leaf,

Armoracia rusticana (horse radish) root, *Artemisia annua* (Chinese wormwood) herb, *Astragalus membranaceus* (milk vetch) root, *Avena sativa* (oats) herb, *Barosma betulina* (buchu) **leaf**, *Berberis vulgaris* (barberry) root, *Boswellia serrata* (olibanum) gum oleoresin, *Calendula officinalis* (marigold) flower, *Camelia sinensis* (green tea) **leaf**, *Cassia senna* (senna) fruit, *Caulophyllum thalictroides* (blue cohosh) root, *Centaureum erythraea* (centaury) herb, *Centelia asiatica* (gotu kola) herb, *Chelidonium majus* (greater celandine) herb, *Cimicifuga racemosa* (black cohosh) root, *Cola nitida* (kola) cotyledon, *Crataegus laevigata* (hawthorn) herb, *Crataegus monogyna* (hawthorn) herb, *Curcuma longa* (turmeric) rhizome, *Cynara scolymus* (globe artichoke) **leaf**, *Dioscorea villosa* (wild yam) root, *Echinacea angustifolia* root and rhizome, *Echinacea purpurea* (Echinacea) herb, root and rhizome, *Eleutherococcus senticosus* (Siberian ginseng) root, *Epilobium parviflorum* (small leafed willow) herb, *Equisetum arvense* (horsetail) herb, *Eschscholtzia californica* (Californian poppy) flower, *Eupatorium perfoliatum* (boneset) herb, *Euphorbia hirta* (Euphorbia) herb, *Euphrasia officinalis* (eyebright) herb, *Filipendula ulmaria* (meadowsweet) herb, *Fucus vesiculosus* (kelp) herb, *Galium aparine* (clivers) herb, *Garcinia quaesita* (Garcinia) fruit, *Gentiana lutea* (Gentian) root and rhizome, **Ginkgo biloba** (maidenhair tree) **leaf**, *Glycine max* (soya bean) seed, *Glycyrrhiza glabra* (liquorice) root, *Grindelia robusta* (grindelia) herb, *Hamamelis virginiana* (Hamamelis) **leaf**, *Harpagophytum procumbens* (devil's claw) root, *Humulus lupulus* (hops) fruit, *Hydrangea arborescens* (wild Hydrangea) flower, *Hydrastis canadensis* (golden seal) root, *Hypericum perforatum* (St John's Wort) herb, *Ilex paraguariensis* (mate) **leaf**, *Inula helenium* (elecampane) root, *Malpighia punicifolia* (acerola) fruit, *Matricaria recutita* (German chamomille) flower, *Medicago sativa* (alfalfa) **leaf**, *Melissa officinalis* (balm) **leaf**, *Olea europaea* (olive tree) **leaf**, *Ononis spinosa* (Spring rest-harrow) root, *Orthosiphon stamineus* (Java tree) **leaf**, *Panax ginseng* (Korean ginseng) root, *Passiflora incarnate* (passionflower) herb, *Paullinia cupana* (guarana) seed, *Petroselinum crispum* (parsley) seed, *Peumus boidus* (boldo tree) **leaf**, *Piper methysticum* (kava kava) root, *Piscidia piscipula* (Jamaica dogwood) root bark, *Prunus domestica* (prune) fruit, *Pueraria lobata* (kudzu vine) root, *Rhamnus purshianus* (cascara) bark, *Rosa canina* (dog hip rose) fruit, *Rosmarinus officinalis* (rosemary) **leaf**, *Rumex crispus* (yellow dock) root, *Salix alba* (white willow) bark, *Salvia officinalis* (sage) **leaf**, *Sambucus nigra* (black elder) flower, *Schizandra chinensis* (Chinese mongolavine) fruit, *Scutellaria lateriflora* (skullcap) herb, *Serenoa serrulata* (saw palmetto) fruit, *Silybum marianum* (milk thistle) seeds, *Silybum marianum* (silymarine) fruit, *Smilax officinalis* (sarsaparilla) root/rhizome, *Solidago vigaurea* (golden rod) herb, *Tabebuia avellanedae* (pau d'arco) stem bark, *Taraxacum officinale* (dandelion) herb, *Thymus vulgaris* (common thyme) herb, *Tilia cordata* (lime tree) flower, *Tribulus terrestris* (burra gokhru) fruit, *Trifolium pratense* (red clover) flower, *Turnera diffusa* (damiana) **leaf**, *Uncaria tomentosa* (cat's claw) stem bark, *Urtica dioica* (nettle) root, *Vaccinium myrtillus* (bilberry) fruit, *Valeriana officinalis* (valerian) root, *Vanilla planifolia* (vanilla) fruit, *Verbena officinalis* (vervain) herb, *Viburnum opulus* (cramp bark) twig bark, *Viola odorata* herb, *Viscum album* (mistletoe) herb, *Vitex agnus castus* (chaste tree) fruit, *Vitis vinifera* (Grapeseed) seed, *Withania somnifera* (Winter cherry) root, *Yucca elata* (palmelia) root, *Zanthoxylum americanum* (prickly ash) bark, *Zea mays* (corn) styles and stigmas, *Zingiber officinale* (ginger) rhizome and *Zizyphus spinosa* (Chinese jujube) fruit.

Preferred method: The concentrated herbal **extract**, and the fill liquid are preferably combined at 50-80 degrees Centigrade, and mixed with slow stirring to optimise **solubilisation**. The concentrated herbal **extract** is dispersed into a carrier material prior to combining with the fill liquid. The process comprises:

- (i) dissolving the carrier material with the fill liquid to form a clear herbal solution prior to encapsulation; and/or
- (ii) filtering any undissolved carrier material from the clear herbal solution prior to encapsulation.

L115 ANSWER 10 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1999-278295 [24] WPIX

DNC C1999-081914

TI **Ginkgo leaf** liquor - used to promote blood circulation.

DC B04 D16

IN ZHANG, J

PA (YIGU-N) YIGUANG HEALTH CARE PROD FACTORY ZHONGZH

CYC 1

PI CN 1206742 A 19990203 (199924)* 1p C12G003-04

ADT CN 1206742 A CN 1997-115027 19970724

PRAI CN 1997-115027 19970724

IC ICM C12G003-04

ICS A61K035-78

AB CN 1206742 A UPAB: 19990630

The present invention relates to a health-care **ginkgo leaf** liquor and its method of preparation. The **dried ginkgo leaf** richly containing **flavone** and biolobalide and crataegus pinnatifida are pulverized, distilled liquor is added, heat-insulated for 1-3 hours. It is filtered, then the filtrate is diluted with water, left to settle, and insoluble residue is removed by filtration, then the distilled liquor is added to regulate the concentration of the filtrate, and the honey and cane sugar are added, stood still and filtered so as to obtain the invented finished liquor. The product is used to boost qi and freeing the vessels, promoting circulation of blood and reducing fat, raising oxygen supply for heart muscle, resisting platelet agglutination, reducing cholesterol and improving memory, and free from any side effect.

FS CPI

FA AB

MC CPI: B04-A08C2; **B04-A10**; B14-D02A2; B14-F02; B14-F06; B14-J01A4; D05-E

L115 ANSWER 11 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1999-096549 [09] WPIX

DNC C1999-028658

TI Method for **extracting ginkgo lactone** and preparation containing the same.

DC B03

IN ZHOU, G; ZHOU, L

PA (ZHOU-I) ZHOU G

CYC 1

PI CN 1195665 A 19981014 (199909)* C07G017-00 <--

ADT CN 1195665 A CN 1997-107809 19971202

PRAI CN 1997-107809 19971202

IC ICM C07G017-00

ICS A61K035-78

AB CN 1195665 A UPAB: 19990302

The present invention discloses a method for **extracting ginkgolide** and preparation containing **ginkgolide**. Said **extracting** method includes the following steps: using **ginkgo leaf** or **ginkgo** root bark as raw material, boiling it by adding water, filtering to obtain filtrate, using adsorbent whose dose is 10-15% of the weight of the filtrate to make adsorption for 24-96 hr, filtering, desorption of separated adsorbent for 4-12 hr by using ethyl alcohol whose weight is 15-30 times that of the adsorbent, filtering, concentrating filtrate, recovering ethyl alcohol, residual standstill, separating out coarse crystal grains, dissolving them in organic solvent, filtering, separating out insoluble impurity, residual standstill, separating out crystal grains and **drying** at 60-120 deg.C, so obtaining the invented product with high purity. Said invention is safe, simple in production process and low in cost.

FS CPI

FA AB

L115 ANSWER 12 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1998-216453 [19] WPIX
 CR 2000-513996 [40]; 2001-256459 [22]
 DNC C1998-068568

TI Composition for treatment of impotence in human males - comprises lyophilised roe and powdered **Ginkgo biloba leaf extract**.

DC B04
 IN OMAR, L I
 PA (OMAR-I) OMAR L I
 CYC 1

PI US 5730987 A 19980324 (199819)* A61K035-78 <--
 ADT US 5730987 A US 1996-660875 19960610
 PRAI US 1996-660875 19960610

IC ICM A61K035-78
 ICS A61K035-54

AB US 5730987 A UPAB: 20010515

A composition for treating impotence in human males comprises a mixture of lyophilised roe, obtained from a species of Sturgeon, and a **dry powdered extract** from the **leaves of Ginkgo biloba**, with the **extract** being standardised to include **flavonoid glycosides** and **terpenes**. The ratio of roe:**Ginkgo** is approximately 12.33:1. Also claimed is the preparation of the composition described above comprising: (a) removing the moisture from the roe to obtain **dry** lyophilised roe; and (b) blending the **dried** lyophilised roe with a **dry powdered extract of Ginkgo biloba leaves** by geometrically blending to produce a mixture of roe:**leaves** in a ratio of approximately 12.33:1.

USE - The composition is useful for the treatment of impotence in human males. The combination of the two natural ingredients produces a synergistic effect, that dramatically improves the sexual activity of the male.

ADVANTAGE - The composition, being comprised of two natural ingredients, is relatively cheap to both the manufacturer and the patient. Being natural ingredients, the two components, when used together overcome any damage to the body, as with penile implants and inflatable implants, or serious side effects, such as those noted with prolonged use of testosterone, yohimbine HCl, papaverine, caverject (RTM, prostaglandin E), marijuana, alcohol and/or amyl nitrate.

Dwg.0/0

FS CPI
 FA AB; DCN
 MC CPI: B01-C05; B03-A; B03-F; B03-H; B04-A05; **B04-A09A;**
B04-A10B; B04-B04M; B05-A03A; B05-B02C; B06-D01; B14-D01A;
 B14-P02

L115 ANSWER 13 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1996-426088 [43] WPIX
 DNC C1996-134305

TI Compsn. contg. **Ginkgo biloba extract**, acid and (bi)carbonate - to give aq. compsn. stable for one hour, for treating circulation disorders.

DC B04
 IN OSCHMANN, R
 PA (SCHW-N) SCHWABE GMBH & CO WILLMAR
 CYC 20

PI DE 19509856 A1 19960919 (199643)* 3p A61K035-78 <--
 WO 9629085 A1 19960926 (199644) DE 11p A61K035-78 <--
 RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
 W: JP US
 DE 19509856 C2 19970911 (199740) 3p A61K035-78 <--
 EP 814824 A1 19980107 (199806) DE A61K035-78 <--
 R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
 JP 11502214 W 19990223 (199918) 9p A61K035-78 <--
 EP 814824 B1 20010509 (200128) DE A61K035-78 <--

R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
 DE 59606882 G 20010613 (200134) A61K035-78 <--
 ES 2157429 T3 20010816 (200156) A61K035-78 <--
 ADT DE 19509856 A1 DE 1995-19509856 19950317; WO 9629085 A1 WO 1996-EP1135
 19960315; DE 19509856 C2 DE 1995-19509856 19950317; EP 814824 A1 EP
 1996-907489 19960315, WO 1996-EP1135 19960315; JP 11502214 W JP
 1996-528064 19960315, WO 1996-EP1135 19960315; EP 814824 B1 EP 1996-907489
 19960315, WO 1996-EP1135 19960315; DE 59606882 G DE 1996-506882 19960315,
 EP 1996-907489 19960315, WO 1996-EP1135 19960315; ES 2157429 T3 EP
 1996-907489 19960315
 FDT EP 814824 A1 Based on WO 9629085; JP 11502214 W Based on WO 9629085; EP
 814824 B1 Based on WO 9629085; DE 59606882 G Based on EP 814824, Based on
 WO 9629085; ES 2157429 T3 Based on EP 814824
 PRAI DE 1995-19509856 19950317
 REP JP 7069862
 IC ICM A61K035-78
 ICS A61K009-00; A61K009-16
 AB DE 19509856 A UPAB: 19961025
 Sparkling compsn. contains **Ginkgo biloba dry**
extract and a sparkling mixt. of a physiologically acceptable acid
 (or its sodium salt) and a carbonate or hydrogen carbonate, in proportions
 such that the resulting soln. has a pH of 6-8 and is stable for at least
 one hour.
 USE - The compsn. is used to treat peripheral and cerebral
 circulation disorders.
 ADVANTAGE - The compsn. forms a clear soln. that is stable for
 sufficient time to prevent degradation or pptn. of valuable components.
 Dwg.0/0
 FS CPI
 FA AB; DCN
 MC CPI: B04-A08C1; **B04-A10B**; B04-C03C; B05-C04; B10-A09B; B10-C02;
 B12-M09; B14-F02
 L115 ANSWER 14 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1996-321857 [32] WPIX
 DNC C1996-102552
 TI Hydroxy-proline-rich glyco-protein(s) for use in cosmetic or
 pharmaceutical preps. - are obtd. by acid-alcohol **extn.** from
 Taxus spp., **Ginkgo biloba**, Lycopersicum esculentum or
 Daucus carota cell cultures.
 DC B04 C06 D16
 IN BOMBARDELLI, E; PONZONE, C
 PA (INDE-N) INDENA SPA
 CYC 68
 PI WO 9620284 A1 19960704 (199632)* EN 15p C12P021-00 <--
 RW: AT BE CH DE DK ES FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ
 UG
 W: AL AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP
 KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO
 RU SD SE SG SI SK TJ TM TT UA UG US UZ VN
 AU 9643468 A 19960719 (199647) C12P021-00 <--
 NO 9702984 A 19970626 (199739) C12P021-00 <--
 EP 800585 A1 19971015 (199746) EN C12P021-00 <--
 R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE
 FI 9702757 A 19970818 (199747) C12P000-00 <--
 CZ 9702024 A3 19971112 (199801) C12P021-00 <--
 IT 1271342 B 19970527 (199805) C07D000-00 <--
 SK 9700860 A3 19971210 (199811) C12P021-00 <--
 AU 692654 B 19980611 (199834) C12P021-00 <--
 HU 77703 T 19980728 (199842) C12P021-00 <--
 JP 10510432 W 19981013 (199851) 15p C12P021-00 <--
 KR 98701038 A 19980430 (199914) C12P021-00 <--
 JP 2997063 B2 20000111 (200007) 4p C07K014-415
 SK 280572 B6 20000313 (200032) C12P021-00
 US 6072030 A 20000606 (200033) C07K005-00
 EP 800585 B1 20010411 (200121) EN C12P021-00

R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE

RU 2163266 C2 20010220 (200123) C12P021-00
 DE 69520693 E 20010517 (200135) C12P021-00
 ES 2155541 T3 20010516 (200138) C12P021-00
 CA 2208960 C 20010911 (200156) EN C07K014-415
 ADT WO 9620284 A1 WO 1995-EP5084 19951221; AU 9643468 A AU 1996-43468
 19951221; NO 9702984 A WO 1995-EP5084 19951221, NO 1997-2984 19970626; EP
 800585 A1 EP 1995-942191 19951221, WO 1995-EP5084 19951221; FI 9702757 A
 WO 1995-EP5084 19951221, FI 1997-2757 19970626; CZ 9702024 A3 WO
 1995-EP5084 19951221, CZ 1997-2024 19951221; IT 1271342 B IT 1994-MI2663
 19941228; SK 9700860 A3 WO 1995-EP5084 19951221, SK 1997-860 19951221; AU
 692654 B AU 1996-43468 19951221; HU 77703 T WO 1995-EP5084 19951221, HU
 1998-203 19951221; JP 10510432 W WO 1995-EP5084 19951221, JP 1996-520195
 19951221; KR 98701038 A WO 1995-EP5084 19951221, KR 1997-704423 19970626;
 JP 2997063 B2 WO 1995-EP5084 19951221, JP 1996-520195 19951221; SK 280572
 B6 WO 1995-EP5084 19951221, SK 1997-860 19951221; US 6072030 A WO
 1995-EP5084 19951221, US 1997-849866 19970618; EP 800585 B1 EP 1995-942191
 19951221, WO 1995-EP5084 19951221; RU 2163266 C2 WO 1995-EP5084 19951221,
 RU 1997-112906 19951221; DE 69520693 E DE 1995-620693 19951221, EP
 1995-942191 19951221, WO 1995-EP5084 19951221; ES 2155541 T3 EP
 1995-942191 19951221; CA 2208960 C CA 1995-2208960 19951221, WO
 1995-EP5084 19951221
 FDT AU 9643468 A Based on WO 9620284; EP 800585 A1 Based on WO 9620284; CZ
 9702024 A3 Based on WO 9620284; AU 692654 B Previous Publ. AU 9643468,
 Based on WO 9620284; HU 77703 T Based on WO 9620284; JP 10510432 W Based
 on WO 9620284; KR 98701038 A Based on WO 9620284; JP 2997063 B2 Previous
 Publ. JP 10510432, Based on WO 9620284; SK 280572 B6 Previous Publ. SK
 9700860; US 6072030 A Based on WO 9620284; EP 800585 B1 Based on WO
 9620284; RU 2163266 C2 Based on WO 9620284; DE 69520693 E Based on EP
 800585, Based on WO 9620284; ES 2155541 T3 Based on EP 800585; CA 2208960
 C Based on WO 9620284
 PRAI IT 1994-MI2663 19941228
 REP 1.Jnl.Ref; EP 533408
 IC ICM C07D000-00; C07K005-00; C07K014-415; C12P000-00
 ICS A61K007-00; A61K007-48; A61K035-78; A61K038-00; A61K038-16;
 C07K014-78
 ICA C12P021-00
 AB WO 9620284 A UPAB: 19960819
 Hydroxyproline-rich glycoproteins are obtainable by acid-alcohol
extn. from *Taxus* spp., *Ginkgo biloba*,
Lycopersicum esculentum and *Daucus carota* cell cultures, and have the
 following characteristics: (a) average mol. wt. 20 kDa with variability
 interval 12000-38000, as determined by gel permeation and electrophoresis,
 and (b) high **solubility** in water.
 The glycoproteins are pref. prepd. by culture of *Taxus* spp.,
Ginkgo biloba, *Lycopersicum esculentum* or *Daucus carota*
 cells for 3-12 days followed by acid-alcohol **extn.**
 USE - The glycoproteins can be used as active principle in cosmetic
 and pharmaceutical preps. having hydrating, film-forming, toning and
 cicatrizant properties (claimed). They can be used for the treatment of
 e.g. **dry** skin, psoriasis, ichthyosis, dandruff, keratosis,
 wrinkles, acne, eczema, inflammatory dermatosis or ageing of the skin.
 They can also be used for the treatment of burns or wounds.
 ADVANTAGE - The glycoproteins have higher hydrating, film-forming,
 toning and cicatrizant properties than those of collagen. Aq. solns. of
 the glycoproteins remain stable without any polymerisation leading to the
 formation of insol. prods. In addn., the viscosity of these solns. is
 partic. high and not dependent on the concns.
 Dwg.0/0
 FS CPI
 FA AB
 MC CPI: B04-N06; C04-N06; B14-C03; C14-C03; B14-N17; C14-N17; B14-R01;
 C14-R01; B14-R02; C14-R02; D05-C12; D05-H13; D08-B09A

DNC C1996-006218
TI **Extracting flavone glycoside** from ginkgo leaves and apparatus for extn..
DC B03 B04
IN CHOE, S
PA (DONG-N) DONG KOOK PHARM CO LTD
CYC 1
PI KR 9402798 B1 19940402 (199602)* A61K035-78 <--
ADT KR 9402798 B1 KR 1989-14361 19891006
PRAI KR 1989-14361 19891006
IC ICM A61K035-78
AB KR 9402798 B UPAB: 19960115
The process comprises: (a) putting **ginkgo leaves** in a column (1); (b) **drying** the leaves by nitrogen gas heated in a heat-exchanger (2); (c) **extracting** them by passing phosphate buffer through the column; (d) **extracting flavone glycoside** by spraying a buffer soln. which contains useful cpds., to the solvent in the multi-step **extracting** apparatus (3,4,5); and (e) concentrating it in a vacuum concentrator (6) to give **flavone glycoside** with high purity. The used phosphate buffer soln. is reserved in a reservoir (7) to be used again.
FS CPI
FA AB
MC CPI: B04-A07E

L115 ANSWER 16 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1996-018389 [02] WPIX
DNC C1996-006217
TI **Extraction and purification of flavonoid glycoside** from ginkgo leaves.
DC B03 B04
IN LEE, S
PA (KOLO-N) KOLON IND INC
CYC 1
PI KR 9402797 B1 19940402 (199602)* A61K035-78 <--
ADT KR 9402797 B1 KR 1989-11341 19890809
PRAI KR 1989-11341 19890809
IC ICM A61K035-78
AB KR 9402797 B UPAB: 19960115
The process comprises: (a) **extracting dried** and crushed leaves with mixed solvent (acetone + H2O); (b) removing fat-soluble cpds. with non-polar solvent; (c) **extracting** aqueous solution with alcohol, alkalinising it with NaOH and subsequently acidifying it with inorganic acid; (e) **extracting** again with alcohol; (e) vacuum-drying it to obtain a conc. alcoholic **extract**; (f) adding a mixed solvent of MeOH (I), H2O (II), and CH3COOH or HCOOH (III) in ratio (I):(II):(III) of 1-9:9-1:0.01-1 to the **extract**; (g) crystallising repeatedly at -5 to +5deg.C to give highly concentrated **flavone glycoside**.
FS CPI
FA AB
MC CPI: B04-A07E

L115 ANSWER 17 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1995-200812 [27] WPIX
DNC C1995-092842
TI Single or compound prepn. of **ginkgo leaf** and plant contg. saponin.
DC B04
IN ZHOU, W
PA (ZHOU-I) ZHOU W
CYC 1
PI CN 1085091 A 19940413 (199527)* A61K035-78 <--
ADT CN 1085091 A CN 1993-105878 19930531
PRAI CN 1993-105878 19930531
IC ICM A61K035-78

AB CN 1085091 A UPAB: 19950712
 Series preps. in the form of solid or liq. for prophylaxis and treatment of cardiovascular and cerebrovascular diseases, giving up smoking and detoxicating alcohol poison, are prepd. with raw materials, e.g. **dried ginkgo leaf powder, extract** from **ginkgo leaf**, and some total steroid **glycoside** contg. spirostan skeleton. In its **extraction**, polar solvent, adsorption separation and CO2 supercritical **extraction** separation are used. A molecular capsule technique is used to avoid bitter taste.

FS CPI
 FA AB
 MC CPI: **B04-A07E; B04-A10; B14-F01B; B14-F02D1; B14-M01A; B14-M01B**

L115 ANSWER 18 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1995-126099 [17] WPIX

DNC C1995-057530

TI Health drink without bitter taste - comprises **extracts** of **Ginkgo biloba leaves** and Prunus mume.

DC B04 D13

PA (ASAK) ASahi BREWERIES LTD

CYC 1

PI JP 07048267 A 19950221 (199517)* 4p A61K035-78 <--
 JP 2748331 B2 19980506 (199823) 4p A61K035-78 <--

ADT JP 07048267 A JP 1993-212283 19930804; JP 2748331 B2 JP 1993-212283 19930804

FDT JP 2748331 B2 Previous Publ. JP 07048267

PRAI JP 1993-212283 19930804

IC ICM A61K035-78

ICS A23L002-38

AB JP 07048267 A UPAB: 19950508

New crude **extracts** comprises **extracts** of **Ginkgo biloba leaves** and Prunus mume.

The amt. of Prunus mume to **Ginkgo leaves extracts** (1) is 0.0001-100, pref. 0.01-10 based on weight of the **leaves**. The concn. of whole **soluble** solid substance in the healthy drinks is from Brix 0.1-30.0, pref. 1.0-20.0, and acidity is 0.0001-1.0, pref. 0.05-0.5 based on anhydrous, citric acid acidity.

✓ **Dried leaves of Ginkgo biloba** are **extracted** with aq. lower alcohol, and lower polar substance is eliminated using fat-**soluble** organic solvent from the obtd. crude **extracts**, or further **extracted** with organic solvent which are not mixed with water.

Ordinary sweetners, licorice root **extracts** or zizphi fructus **extracts** may be added as sweetners. As acidic sources, ordinary acidity as citric acid and acetic acid may be also added. Fruit juice such as peaches, plums, apricots, grape fruits and apples are also added to improve the tastes.

ADVANTAGE - The bitterness and astringent tastes of the **extracts** of **Ginkgo leaves** are removed, and healthy drink of improved tastes are obtd..

In an example, 55% fruit sugar-grape sugar liq. (121g), citric acid mono-hydrate (3.1g), **Ginkgo leaves extracts** (2.5g), Prunus the sample drink A. As a control, instead of Prunus mume, licorice root **extracts**, SANSASHI **extracts** or zizphi fructus is added to give drink B, C and D respectively.

Brix and acidity of the sample and control drinks was 9.0 and 0.3. 30 People took each of the drink, and the results showed that sample drink A was found to be the most favourite of the drinks.

Dwg.0/0

FS CPI

FA AB; GI

MC CPI: **B04-A08C1; B04-A10B; B14-E11; D03-H01G; D03-H01T2**

L115 ANSWER 19 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1994-039699 [05] WPIX

DNC C1994-017823

TI Prepn. of water **soluble extract** of ginkgo **leaves** - by dissolving aq.-insol. **extract** in warm or organic solvent-contg. water, adding basic cpds. and spraying soln. onto base granule powder.

DC B04 D13 D21

PA (NIGR-N) NIPPON GREEN WAVE KK

CYC 1

PI JP 05344873 A 19931227 (199405)* 5p A23L002-38 <--

ADT JP 05344873 A JP 1991-289390 19911009

PRAI JP 1991-289390 19911009

IC ICM A23L002-38

ICS A61K007-00; A61K035-78

AB JP 05344873 A UPAB: 19940315

Prepn. of **extracts** of **gink leaves**

soluble in water comprises (1) dissolution of water-insoluble **extract** powder of **ginkgo leaves** into warm water or water-contg. organic solvents; (2) addn. of basic cpds. to the soln. to give pH 6 or more; and (3) spraying and **drying** of the pH-controlled soln. on base granule powder to form granules coated by the **extract**.

The basic cpd. for control of pH is pref. potassium bicarbonate. The base granule powder is pref. maltitol, or lactose.

USE/ADVANTAGE - The granules are useful for tablets, healthy drinks, or cosmetics (claimed) good for health.

In an example, **ginkgo leaf extract** powder (300g) contg. 24% of **flavone glycoside** was dissolved in 40 vol/vol% ethanol-contg. aq. soln. (100ml). potassium bicarbonate (20 w.v.)% aq. soln. was added for control of pH 7.0. The soln. was sprayed over base granule of maltose (3kg) with feed of warm air of 60 deg.C. Spraying and **drying** were repeated three times. Obtd. granules were **dried** at 60 deg.C for 10 mins. to obtain water-soluble granules (3.23kg).

Dwg.0/2

FS CPI

FA AB

MC CPI: B04-A10B; B05-C04; B07-A02B; B10-A07; B12-M11D; B14-R01; D03-H01T2; D08-B

L115 ANSWER 20 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1993-365151 [46] WPIX

DNC C1993-161843

TI Water **soluble ginkgo leaf extract** used in health food - obtd. by concn. **drying** of soln. contg. **ginkgo extract** of PH6 or more.

DC B04 D13

PA (ICHO-N) ICHOHA SANGYO KK; (NIGR-N) NIPPON GREEN WAVE KK

CYC 1

PI JP 05271084 A 19931019 (199346)* 4p A61K035-78 <--

ADT JP 05271084 A JP 1991-139438 19910516

PRAI JP 1991-139438 19910516

IC ICM A61K035-78

ICS A23L001-30

AB JP 05271084 A UPAB: 19940103

Ginkgo leaf extract is obtd. by condensation-**drying** of a soln. contg. **ginkgo extract** of pH 6 or more.

Water-insol. **Ginkgo extract** obtd. by extn . using water-contg. organic solvents is mixed with hot water or water-contg. solvents, in addn. of a basic cpd. (e.g. ammonium hydrogen carbonate) for control of pH, and condensed and **dried** to give water-soluble **Ginkgo extract**.

USE/ADVANTAGE - The water-soluble **ginkgo extract** is useful for healthy foods, or prepn. of injection.

In an example, water-insol. **Ginkgo extract** powder

(10g) contg. 24% of **flavone glycoside** was added to 20 v/v% ethanol-contg. aq. soln. (100 ml), and heated at 60 deg.C to form **Ginkgo extract** soln. of pH 3.8. 10% ammonium hydrogen carbonate aq. soln. was added to the soln. for pH 6.2. Obtd. soln. was condensed using an evaporator to form powder **soluble** in water (9.6g). The powder (1g) was dissolved in water (10 ml) to form transparent soln. of pH 6.1.

Dwg.0/0

FS CPI

FA AB

MC CPI: **B04-A07F2**; D03-H01L; D03-H01T

L115 ANSWER 21 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1993-236760 [30] WPIX

DNC C1993-105430

TI **Flavonoid extract** prodn from **gingko biloba leaves** - by repeated **extn** with mixts of organic solvents and water.

DC B04 D21

PA (EURO-N) EUROMED SA

CYC 1

PI ES 2036951 A1 19930601 (199330)* A61K035-78 <--

ES 2036951 B1 19940116 (199407) A61K035-78 <--

ADT ES 2036951 A1 ES 1991-2679 19911129; ES 2036951 B1 ES 1991-2679 19911129

PRAI **ES 1991-2679 19911129**

IC ICM **A61K035-78**

AB ES 2036951 A UPAB: 19931118

The **leaves** are **extracted** with an aq. lower ketone or alcohol soln. and the solvent removed, leaviong a soft **extract**. This is dissolved in a mixt. of water and organic solvent with limited miscibility, and then **extracted** with the same solvent satd. with water. After concn. the remaining **extract** is opt. treated to remove lipid components, and dissolved in a lower alcohol, filtered and concentrated. Treatment with aq. ammonium sulphate soln. together with a lower alcohol and ketone, leads to an organic phase from which the solvent is evaporated. The **dry** product consists of 15-40% ginkgo flavanoids with a maximum of 1.5% prodelphinidines and 10% proanthoacinidines.

USE - Used for treatment of cerebral circulation deficiency and for local cosmetic prepsns.

FS CPI

FA AB

MC CPI: **B04-A07F2**; B12-C10; B12-E01; B12-L02; D08-B

L115 ANSWER 22 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1993-227036 [28] WPIX

DNC C1993-101058

TI Use of **bilobalid** or **Ginkgo biloba extract** - for the treatment of anxiety, depression and tension.

DC B02

IN CHATTERJEE, S; NOELDNER, M; CHATTERJEE, S S

PA (SCHW-N) **SCHWABE GMBH & CO WILLMAR**

CYC 18

PI WO 9312784 A1 19930708 (199328)* DE 25p A61K031-365 <--

RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

W: JP US

EP 618797 A1 19941012 (199439) DE <--

R: DE FR GB IT

JP 07502522 W 19950316 (199519) 7p A61K031-365 <--

US 6022889 A 20000208 (200014) A61K031-34

EP 618797 B1 20000315 (200018) DE A61K031-365

R: DE FR GB IT

DE 59209823 G 20000420 (200026) A61K031-365

JP 3188461 B2 20010716 (200142) 10p A61K031-365

ADT WO 9312784 A1 WO 1992-EP2981 19921222; EP 618797 A1 WO 1992-EP2981

19921222, EP 1993-901748 19921222; JP 07502522 W WO 1992-EP2981 19921222,

JP 1993-511428 19921222; US 6022889 A WO 1992-EP2981 19921222, US 1994-244900 19940714; EP 618797 B1 WO 1992-EP2981 19921222, EP 1993-901748 19921222; DE 59209823 G DE 1992-509823 19921222, WO 1992-EP2981 19921222, EP 1993-901748 19921222; JP 3188461 B2 WO 1992-EP2981 19921222, JP 1993-511428 19921222

FDT EP 618797 A1 Based on WO 9312784; JP 07502522 W Based on WO 9312784; US 6022889 A Based on WO 9312784; EP 618797 B1 Based on WO 9312784; DE 59209823 G Based on EP 618797, Based on WO 9312784; JP 3188461 B2 Previous Publ. JP 07502522, Based on WO 9312784

PRAI DE 1991-4142878 19911223

REP 4.Jnl.Ref; EP 143977; GB 2023421; JP 02031646; US 4571407

IC ICM A61K031-34; A61K031-365

ICS A61K035-78; A61P025-22; A61P025-24

ICA C07D493-14

AB WO 9312784 A UPAB: 19931116

Use of **bilobalid** (I), or of a **Ginkgo biloba**

extract enriched in (I), as an anxiolytic agent is new.

USE - (I), or the **extract**, is useful for treatment or prevention of anxiety, tension and depression. It has an anxiolytic action largely similar to that of diazepam or buspiron. (I) is already known for treatment of degenerative nervous disorders.

Formulations are conventional tablets, solns., capsules, etc. and daily doses are 5-40 mg (I) orally or 0.5-5 mg parenterally. A typical tablet contains 5 mg pure (I); 58.5 mg lactose; 18 mg microcrystalline cellulose; 18 mg corn starch and 0.5 mg Mg stearate.

Dwg.0/3

FS CPI

FA AB; GI; DCN

MC CPI: B06-A03; B12-C06; B12-C10

L115 ANSWER 23 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1992-305834 [37] WPIX

DNC C1992-136221

TI **Extn.** and purificn. of **flavonoid** cpd. from **ginkgo leaves** - involves mixing **leaves** with soln. contg. cellulose, cellulase, etc. in water, heating and centrifuging.

DC B04 D16

IN HUH, J

PA (KWAN-N) KWANGDONG PHARM CO

CYC 1

PI KR 9102391 B 19910422 (199237)*

A61K035-78 <--

ADT KR 9102391 B KR 1988-11559 19880907

PRAI KR 1988-11559 19880907

IC ICM A61K035-78

AB KR 9102391 B UPAB: 19931006

The process for **extracting** and purifying **flavonoid** cpd. from **ginkgo leaves** comprises (a) adding 10-20% **ginkgo leaves**, and 0.05-0.2%, wt. soln. contg.

'macelosin' (I), cellulose C(II) and cellulose NC(III) (mixing ratio (I):(II):(III) is 0.5-3.0:0.3-1.5:0.1-0.3) to the water and agitating the mixt., (b) heating it at 20-50 deg.C and centrifuging it to obtain the supernatant, (c) adding organic solvent, e.g. diethylether, methylene chloride etc., to the supernatant, shaking and separating the water lyer, (d) passsing the water layer through the column filled with 20-40 mesh. Amberite resin XAD-2, (e) adding methanol to resin to obtain the **extract**, and (f) vacuum-evaporating the **extract** and vacuum-drying it to give the final product.

FS CPI

FA AB

MC CPI: B06-A02; B11-B; D05-A02D

L115 ANSWER 24 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1992-265118 [32] WPIX

DNC C1992-118408

TI Prepn. of **extract** of ginkgo leaf having good medicinal

effects - by **extracting** dried leaves with ethanol soln., condensing **extracted** liq., contacting filtered liq. with unsubstituted porous resin, etc..

DC B04 D13
PA (UMED-I) UMEDA S
CYC 1
PI JP 04182434 A 19920630 (199232)* 4p A61K035-78 <--
JP 2996716 B2 20000111 (200007) 3p A61K035-78 <--
ADT JP 04182434 A JP 1990-312175 19901117; JP 2996716 B2 JP 1990-312175 19901117
FDT JP 2996716 B2 Previous Publ. JP 04182434
PRAI JP 1990-312175 19901117
IC ICM A61K035-78
ICS A23L001-30
ICA A61P009-00
AB JP 04182434 A UPAB: 19931025
In the prepn. of an **extract** of **ginkgo leaf** contg. at least 20% of **flavone glycosides**, the **dried leaves** are **extracted**, while warming, with 40-80% aq. ethanol soln.. The **extracted** liq. is condensed to up to one-half of the original vol., cooled and filtrated. The filtrate is contacted with an unsubstd. type porous resin to adsorb the **extract**. After washing with water, the resin is contacted with at least 60% aq. ethanol soln. to desorb the **extract**. Alternatively, the resin is contacted with 10-40% aq. ethanol soln. and then with at least 60% aq. ethanol soln. to desorb in order. The eluate obtd. by the desorption is condensed to dryness to obtain the **extract** contg. at least 20% of the **glycosides**.
Pref., a water-soluble high mol. cpd(s). and/or polyglycerol fatty acid ester(s) is added to the aq. ethanol soln. and **dried** to obtain the **extract** having good water dispersibility.
USE/ADVANTAGE - Using safe ethanol as the solvent, the simple method gives high yield and high quality. The **extract** obtd. has good medicinal effects. The addn. of the high mol. cpds. and/or the esters gives good water dispersibility.
Dwg.0/0
FS CPI
FA AB
MC CPI: B04-A07D5; D03-H01T

L115 ANSWER 25 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1992-106361 [14] WPIX
DNC C1992-049649

TI New **extract** from **Ginkgo Bilba leaves** - suitable for intravenous injection or infusion, and has no serum-precipitating and/or haem agglutinating properties.

DC B04
IN SCHWABE, K P; SCHWABE, K
PA (SCHW-N) **SCHWABE GMBH & CO WILLMAR**; (SCHW-N) **SCHWABE W & CO GMBH**; (SCHW-N) **SCHWABE GMBH & CIE WILLMAR**

CYC 18
PI EP 477968 A 19920401 (199214)* 9p <--
R: AT BE CH DE DK ES FR GB GR IT LU NL SE
DE 4030758 A 19920402 (199215) 5p <--
CA 2052392 A 19920329 (199225) A61K031-70 <--
JP 04288019 A 19921013 (199247) 5p A61K035-78 <--
EP 477968 B1 19950503 (199522) EN 11p A61K035-78 <--
R: AT CH DE ES FR GB GR IT LI NL
DE 69109426 E 19950608 (199528) A61K035-78 <--
JP 07076177 B2 19950816 (199537) 6p A61K035-78 <--
ES 2077130 T3 19951116 (199551) A61K035-78 <--
US 5512286 A 19960430 (199623) 7p A61K035-78 <--
KR 154984 B1 19981116 (200029) A61K035-78 <--
ADT EP 477968 A EP 1991-116551 19910927; DE 4030758 A DE 1990-4030758 19900928; CA 2052392 A CA 1991-2052392 19910927; JP 04288019 A JP

1991-249122 19910927; EP 477968 B1 EP 1991-116551 19910927; DE 69109426 E
 DE 1991-609426 19910927, EP 1991-116551 19910927; JP 07076177 B2 JP
 1991-249122 19910927; ES 2077130 T3 EP 1991-116551 19910927; US 5512286 A
 Cont of US 1991-766929 19910927, US 1994-200378 19940223; KR 154984 B1 KR
 1991-16973 19910928
 FDT DE 69109426 E Based on EP 477968; JP 07076177 B2 Based on JP 04288019; ES
 2077130 T3 Based on EP 477968
 PRAI DE 1990-4030758 19900928
 REP 3.Jnl.Ref; DE 2117429; EP 303277; EP 352146; JP 02104530; JP 62029517; JP
 62292794; US 4753929
 IC ICM A61K031-70; A61K035-78
 ICS A61K009-14; A61K009-19; B01D011-02
 AB EP 477968 A UPAB: 19950626

Extracts from the leaves of Ginkgo
biloba contg. most of the **flavone glycosides**,
ginkgolides and **bilobalide** originally present in the
leaves are free of components of the **leaves** which have
 serum-precipitating and/or haemagglutinating properties.

Pref. the **extract** contains 20-30 wt.% (esp. 22-26)
flavone glycosides, 2.5-4.5 wt.% **ginkgolides**
 A, B, C and J in total, 2.0-4.0 wt.% **bilobalide** and less than
 10ppm (esp. less than 1 ppm) alkylphenol cpds.

USE/ADVANTAGE - The **extract** is esp. useful for the prepn.
 of pharmaceuticals, pref. in ampoule form, for intravenous (IV) admin.
 e.g. IV injection or infusion, as it does not contain components
 disturbing IV admin. e.g. serum-precipitating and/or haemagglutinating
 compounds.

0/0
 Dwg.0/0

FS CPI
 FA AB
 MC CPI: B04-A07F2; B12-H04
 ABEQ EP 477968 B UPAB: 19950609

Extract from the leaves of Ginkgo
biloba containing most of the **flavone glycosides**
 , **ginkgolides** and **bilobalide** originally present in the
leaves, characterised in that it is essentially free of components
 of the **leaves** with serum-precipitating and/or haemagglutinating
 properties.
 Dwg.0/0

ABEQ US 5512286 A UPAB: 19960610
 An **extract** from the **leaves of Ginkgo**
biloba containing most of the **flavone glycosides**
 , **ginkgolides** and **bilobalide** originally present in the
leaves, comprising 20 to 30 weight percent **flavone**
glycosides, 2.5 to 4.5 weight percent **ginkgolides** selected from
 the group consisting of **ginkgolide** A, B, C and J and mixtures thereof, 2.0
 to 4.0 weight percent **bilobalide** and less than 10 ppm
 alkylphenol compounds, said **extract** being essentially free of
 components of the **leaves** with serum-precipitating or
 haemagglutinating properties.
 Dwg.0/0

L115 ANSWER 26 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1992-090711 [12] WPIX
 TI Cosmetic natural compsn. for body care - comprises vegetable oil and
 plant **extract**, used e.g. as solar, anti-wrinkling, slimming
 prod. for **dry** skin.
 DC D21
 IN RAQUET, J P
 PA (RAQU-I) RAQUET J; (RAQU-I) RAQUET J P
 CYC 2
 PI FR 2663848 A 19920103 (199212)* 19p <--
 BE 1004405 A3 19921117 (199302) 25p A61K000-00 <--
 ADT FR 2663848 A FR 1991-7708 19910620; BE 1004405 A3 BE 1990-672 19900702
 PRAI BE 1990-672 19900702

IC A61K007-48

AB FR 2663848 A UPAB: 19931006

Prepn. comprises mixing oil-**soluble** vegetable oils with oil-**soluble** plant **extracts**, pref in respective amts. of 80% and 20%.

USE - Multiport prods. and prods. for (dry) skin, the neck, hands, buttocks, legs etc., using sweet almond, jojoba apricot kernel, wheat germ- calendula- or arnica-, **ginkgo biloba** or melaleuca- -oil etc.

In an example, an anti wrinkle prod. comprises as vegetable oil, 10% sweet almond oil, 30% jojoba oil, 30% apricot kernel oil and 10% wheat germ oil. (2) A prod for insect stings comprises, as vegetable oil 30% arnica oil, 20% camomile oil, 29% **ginkgo** biboba oil and 1% melaleuca oil. (3) A prod. for the neck comprises, as vegetable oil, 10% sweet almond oil, 10% avocado oil, 10% calendula oil, 20% apricot kernel oil, 10% wheat germ oil and 20% jojoba oil.

0/0

FS CPI

FA AB

MC CPI: D08-B09A

ABEQ BE 1004405 A UPAB: 19931006

Prepn. comprises mixing oil-**soluble** vegetable oils with oil-**soluble** plant **extracts**, pref. in respective amts. of 80% and 20%.

BE1004405A - A3 USE - Multiport prods. and prods. for (dry) skin, the neck, hands, buttocks, legs etc., using sweet almond, jojoba apricot kernel, wheatgerm- calendula or arnica-, **ginkgo biloba** or melaleuca- oil etc.

0/0

L115 ANSWER 27 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1991-337250 [46] WPIX

DNC C1991-145730

TI **Flavonoid extn.** from ginkgo leaf for pharmaceutical prodn. - comprises **extracting flavonoid** with hydrophilic organic solvent and adsorbing onto synthetic acryl ester polymer.

DC B03 B04 D13 D21 E13

PA (ICHP) ICHIMARU PHARCOS INC

CYC 1

PI JP 03227985 A 19911008 (199146)*

<--

ADT JP 03227985 A JP 1989-289787 19891107

PRAI JP 1989-289787 19891107

IC A23L001-30; A61K007-00; A61K035-78; C07D311-30

AB JP 03227985 A UPAB: 19930928

Extracting flavonoid comprises using hydrophilic organic solvent, and subjecting crude **extract** to a synthetic adsorbent of acryl-ester-polymer series.

USE/ADVANTAGE - Since **flavonoids** show lipoperoxide formation inhibiting activity and blood circulation improving activity, they are pharmaceutically useful and can be included in quasidrugs, cosmetics, and processed foods. **Flavonoids** are purified at higher yield over conventional methods.

In an example, **ginkgo leaves** were **extracted** with methanol at 60-70 deg C for 4-6 hrs. with stirring, followed by filtration. The filtrate was concentrated, added with water and chloroform to obtain a water layer contg. no lipids and chlorophyl. Next, to this layer, a synthetic adsorbent of acrylester series was added with stirring, followed by filtration. The obtd. resin body was added to methanol soln., stirred and filtered. The resultant resin body was added to methanol soln., stirred, and filtered. The obtd. filtrate was concentrated, and **dried** to obtain the essence. Yield was 0.84%.

0/0

FS CPI

FA AB; DCN

MC CPI: B06-A01; B12-E01; B12-G01B1; D03-H01T; D08-B09A; E06-A01; E11-Q01

L115 ANSWER 28 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1991-172349 [24] WPIX

DNC C1991-074469

TI Enriched **extracts** of **Ginkgo biloba** - with
high **flavone glycoside** content, and opt. high
Ginkgolide(s) content and opt. high **bilobalide** content.

DC B04

IN JAGGY, H; OREILLY, J; O'REILLY, J

PA (MONT-N) MONTANA LTD; (WALL-N) WALLINGSTOWN CO LTD

CYC 18

PI DE 3940094 A 19910606 (199124)* <--

EP 436129 A 19910710 (199128) <--

R: AT BE CH DE ES FR GB GR IT LI LU NL SE

CA 2031384 A 19910605 (199133) <--

JP 03264533 A 19911125 (199202) <--

DE 3940094 C 19920702 (199227) 6p A61K035-78 <--

US 5389370 A 19950214 (199512) 6p A61K035-78 <--

EP 436129 B1 19950412 (199519) EN 10p A61K035-78 <--

R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DE 69018601 E 19950518 (199525) A61K035-78 <--

ES 2070981 T3 19950616 (199531) A61K035-78 <--

JP 2503107 B2 19960605 (199627) 6p A61K035-78 <--

KR 175067 B1 19990201 (200039) A61K035-78 <--

ADT DE 3940094 A DE 1989-3940094 19891204; EP 436129 A EP 1990-123140

19901203; JP 03264533 A JP 1990-400222 19901203; DE 3940094 C DE

1989-3940094 19891204; US 5389370 A Cont of US 1990-623861 19901204, US

1992-909137 19920706; EP 436129 B1 EP 1990-123140 19901203; DE 69018601 E

DE 1990-618601 19901203, EP 1990-123140 19901203; ES 2070981 T3 EP

1990-123140 19901203; JP 2503107 B2 JP 1990-400222 19901203; KR 175067 B1

KR 1990-19827 19901204

FDT DE 69018601 E Based on EP 436129; ES 2070981 T3 Based on EP 436129; JP

2503107 B2 Previous Publ. JP 03264533

PRAI DE 1989-3940094 19891204

REP EP 86315

IC ICM A61K035-78

ICS A61K031-35; A61K031-70

ICA C07D311-30

AB DE 3940094 A UPAB: 19970502

Novel **extracts** from the leaves of **Ginkgo**

biloba contain 40-60 (pref. 45-55)% **flavone**

glycosides, 5.5-8.0 (pref. 7.0)% **ginkgolides** A, B, C and

J, 5.0-7.0 (pref. 6.0)% **bilobalide**, less than 10%

proanthocyanidines and at most 10 ppm (pref. less than 1 ppm) alkyl

phenols.

Extracts of the above composition but contg. less than 0.1%

bilobalide, or (c) of the above compsn. but contg. at most 0.1%

ginkgolides are also new.

USE/ADVANTAGE - The **extracts** can be used in the therapy of

peripheral and cerebral arterial disorders of the circulation (

extract (A)) in the therapy of illnesses in which the platelet

activating factor plays a pathogenic (**extract** (B)) and against

demyelinising neuropathia and brain oedema (**extract** (C)). The

enriched concentrates can be used in smaller daily doses than previous

extracts and can be used in countries with high requirements of

pharmaceutical quality. Removal of ineffective components in the safety of

use and allows for more exact analytical determination of the main

components. The low content of alkyl phenols means there is practically no

danger of allergic reactions. @ (6pp Dwg.No.0/0)

FS CPI

FA AB; DCN

MC CPI: B04-A07F2; B12-C10; B12-E01

ABEQ DE 3940094 C UPAB: 19930928

Prepn. of a **flavone** concentrate comprises **extracting**

Ginkgo biloba leaves with aq. acetone, MeOH or

an aq. 1-3C alkanol at temps. 40-100deg.C; evapn. of the solvent (until

not more than 10 wt% is present), opt. diluting with water, (such that the solids content is 15-20 wt%); after cooling below 25degC, the crystalline ppt, is removed (contg. proanthocyanidines) and the aq. filtrate is **extracted** with an alkyl formate or acetate (b.pt. below 120degC), opt. mixed with an aliphatic or alicyclic hydrocarbon (b.pt. 60-100deg.C; 10-30 vol%); the remaining aq. soln. is then distilled to remove ester and hydrocarbon, then **extracted** with a water-immiscible 4-5C alkanol; the alcoholic extract is washed with water (several portions) and then evaporated or mixed with water and/or EtOH and evaporated to obtain the concentrate.

USE - The prods. are therapeutics for periphery and cerebral artery disorders.

0/0

ABEQ US 5389370 A UPAB: 19950328

Extract from Ginkgo biloba leaves

comprises 40-60% **flavone glycosides**, 5.5-8% **ginkgolides** (A,B,C and D or mixts.) and 0.5-7% **bilobalide** and 0-10% proanthocyanidins, with upto 10 ppm alkylphenols.

Prepn. comprises **extn.** of fresh or **dried leaves** with aq. acetone or aq. 1-3C alkanol or anhydrous methanol at 40-100 deg.C, reducing solvent content to 10% to form conc. aq. soln. which is diluted to a solid content of 15-20% wt. at 25 deg.C to form a ppte. of lipophilic matter which is filtered off. The remaining aq. soln. is multi-step **extracted** with formic or acetic acid esters at 120 deg.C. The solvent is distilled off and residual soln. **extd.** with 4-5C alkanol at room temp. The alkanol phases are water-washed and conc. and solvent removed by azeotropic distn. The residue is diluted with 40% aq. ethanol and opt. treated with activated C and **ginkolides** crystallised and purified by column chromatography e.g. on OHPr-dextran gel. The dilute residue may also be further **extracted** with aliphatic or cycloaliphatic hydrocarbon.

USE - Used for treating peripheral and cerebral circulatory disturbance.

Dwg.0/0

ABEQ EP 436129 B UPAB: 19950524

Extract from the leaves of Ginkgo

biloba with a content of 40-60%, preferably 45-55% **flavone**, **glycosides**, 5.5-8.0% in particular 7.0% **ginkgolides** A, B, C and J, 5.0-7.0% in particular 6.0% **bilobalide**, less than 10% proanthocyanidins and a maximum of 10 ppm, preferably less than 1 ppm, alkylphenol compounds.

Dwg.0/0

L115 ANSWER 29 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1991-172348 [24] WPIX

DNC C1991-074468

TI **Extracts from Ginkgo biloba leaves**

- with high content of **flavone glycoside(s)** and **ginkgolide(s)** but with low alkyl phenol(s) content.

DC B04

IN SCHWABE, K P; SCHWABE, K

PA (SCHW-N) **SCHWABE W & CO GMBH**; (SCHW-N) **SCHWABE GMBH & CO**

WILLMAR

CYC 19

PI DE 3940092 A 19910606 (199124)* <--

EP 431536 A 19910612 (199124) <--

R: AT BE CH DE ES FR GB GR IT LI LU NL SE

CA 2031386 A 19910605 (199133) <--

DE 3940092 C 19910919 (199138) <--

JP 03279332 A 19911210 (199204) <--

ES 2024399 A 19920301 (199214) <--

US 5322688 A 19940621 (199424) 5p A61K035-78 <--

JP 07025687 B2 19950322 (199516) 5p A61K035-78 <--

EP 431536 B1 19950719 (199533) EN 7p A61K035-78 <--

R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DE 69021019 E 19950824 (199539) A61K035-78 <--

ES 2024399 T3 19950916 (199543) A61K035-78 <--
 BR 1100103 A3 19970819 (199739) A61K035-78 <--
 KR 185575 B1 19990501 (200052) A61K035-78 <--
 ADT DE 3940092 A DE 1989-3940092 19891204; EP 431536 A EP 1990-123142
 19901203; JP 03279332 A JP 1990-400221 19901203; US 5322688 A Cont of US
 1990-624177 19901204, US 1992-899016 19920615; JP 07025687 B2 JP
 1990-400221 19901203; EP 431536 B1 EP 1990-123142 19901203; DE 69021019 E
 DE 1990-621019 19901203, EP 1990-123142 19901203; ES 2024399 T3 EP
 1990-123142 19901203; BR 1100103 A3 BR 1996-1100103 19961219; KR 185575 B1
 KR 1990-19826 19901204
 FDT JP 07025687 B2 Based on JP 03279332; DE 69021019 E Based on EP 431536; ES
 2024399 T3 Based on EP 431536
 PRAI DE 1989-3940092 19891204
 REP EP 86315; 9.Jnl.Ref; EP 436129
 IC A61K035-78

ICM A61K035-78
 ICS A61K031-70

AB DE 3940092 A UPAB: 19930928

Novel **extracts** from the leaves of **Ginkgo biloba** are practically free from alkyl phenols, have a high content of **flavone glycosides** and contain most of the **ginkgolides** and **bilobalide** originally present in the leaves.

Pref. the **extracts** contain 20-30 (esp. 22-26) wt.% **flavone glycosids**, 2.5-4.6 wt.% total **ginkgolides** A, B, C and J, 2.0-4.0 wt.% **bilobalide**, less than 10 ppm (esp. less than 1 ppm) alkyl phenols and less than 10 wt.% proanthocyanidine.

USE/ADVANTAGE - The **extracts** promote circulation, inhibit ischaemic damage and aggregation of radical acceptors and thrombocytes. The **extracts** are esp. useful in the therapy of peripheral and cerebral arterial disorders of the circulation. Removal of the alkyl phenols (which are associated with allergies) is achieved without the need to use the chlorinated hydrocarbons necessary in previous processes and thus the associated risks to the environment and the presence of residues in the pharmaceutical are avoided. Removal of tannin-like substances (proanththocyanidine) achieved without the need to use lead cpds, thus reducing health risks to the work force and reducing costs.

O/O

FS CPI

FA AB; DCN

MC CPI: B04-A07E; B04-A07F2; B12-F02; B12-H02

ABEQ DE 3940092 C UPAB: 19930928

The **extract** contains the following:- (a) 20-30 (22-26) wt.% **flavone glycoside**; (b) 2.5-4.5 wt.% **ginkgolides** A,B,C and J; (c) 2.0-4.0 wt.% **bilobalide**; (d) less than 10 ppm (pref. less than 1 ppm) alkylphenol cpds.; and (e) less than 10 wt.% proanthocyanidines.

The **extract** is prepd. by **extracting** the leaves with water/acetone mixt., a water/1-3C alkanol mixt. or with anhydrous methanol. The organic solvents are removed until less than 10% remain. In the last distillation stage, water may be added. The resulting aq. soln. is thinned with water to give a solids content of 5-25 wt.%, cooled to below 25 deg.C and left to stand until a ppte. develops. The supernatant aqs. soln. is treated with (NH4)2SO4, followed by one or more **extns.** with methylethyl ketone or a mixt. of methylethyl ketone and acetone. The resulting **extract** is concentrated and thinned with water to give a solids content of 5-20%. This is followed by multistage **extn.** with butanol or pentanol. The non-aq. phase is concentrated to give a solids content of 50-70%. Enough water and ethanol is added to produce a mixt. contg. 5-20 **dry wt.% extract** and 20-60 wt.% aq. ethanol. This is followed by **extn.** with an aliphatic or cycloaliphatic solvent with a b.pt. of 60-100 deg.C and finally by concn. of the aq. phase at 60-80 deg.C under reduced pressure. A **dry extract** is obtd. with a water content of below 5%.

USE/ADVANTAGE - For the treatment of peripheral and cerebral arterial

circulation disorders. The **extract** stimulates circulation, reduces ischaemia, inhibits thrombocyte aggregation and acts as a 'radical catcher'. The **extract** is prepd. without using environmentally damaging chlorinated solvents or lead cpds. which pose a danger to health. It contains almost no alkylphenol cpds. and is therefore unlikely to produce allergic reactions.

ABEQ US 5322688 A UPAB: 19940803

Prepn. of an enhanced **extract** of **Ginkgo biloba** free of alkylphenol cpds. and with high **flavone glycoside** content comprises **extraction** with an aq. acetone or aq. 1-3C alkanol and anhydrous methanol, removal of solvent by distn. at reduced pressure, dilution of the resulting aq. soln. to solid content 5-25 % wt., cooling to ppte. and remove water-insol. lipophilic components, treatment with 10-30 % (NH₄)₂SO₄, then **extraction** with Me Et ketone opt. mixt. with acetone, **extraction** of **extract** with butanol or pentanol, dilution of **extract** with water to form aq./alcohol soln.; **extraction** with aliphatic or cycloaliphatic solvent of B-Pt. 60-100 deg.C, to further remove alkylphenols and concn. aq. **extract** under reduced pressure and **drying** at 60-80 deg.C to water content below 5% wt.

USE - Prod. has 20-30 % wt. **flavone glycosides**, 2.5-4.5 % wt. **ginkgolides** A,B,C and J, 2.0-4.0 % wt. bilobalide and below 10 ppm. alkylphenols and below 10 % wt. proanthocyanidins, and is used for pharmaceuticals for treating peripheral and cerebral arterial circulatory disorders.

Dwg.0/0

ABEQ EP 431536 B UPAB: 19950824

Method of preparation of an **extract** from **Ginkgo biloba** leaves, the **extract** containing 20 to 30 weight percent, in particular 22 to 26 weight percent, favone **glycosides**, 2.5 to 4.5 weight percent of **ginkgolides** A, B, C and J (in total), 2.0 to 4.0 weight percent bilobalide, less than 10 ppm, in particular less than 1 ppm alkylphenol compounds and less than 10 weight percent proanthocyanidin and characterised in that (a) the fresh or dried green leaves of **Ginkgo biloba** are **extracted** at a temperature of approximately 40 to 100 deg.C with aqueous acetone, an aqueous alkanol of 1 to 3 C-atoms or anhydrous methanol, (b) most of the organic solvent is separated from the **extract** to a maximum content of 10 weight percent, whereby water can be added in the last steps of distillation, (c) the remaining concentrated aqueous solution is diluted with water to a solids content of 5 to 25 weight percent left to cool, while being stirred, to a temperature below 25 deg.C left to stand until a precipitate forms and the resultant precipitate consisting of the lipophilic components which do not dissolve well in water is removed.

Dwg.0/0

L115 ANSWER 30 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1991-172347 [24] WPIX

DNC C1991-074467

TI **Extracts from Ginkgo biloba** leaves

- with high content of **flavone glycoside(s)** and **ginkgolide(s)** and bilobalide but with low alkyl phenol(s) content.

DC A96 B04

IN SCHWABE, K P

PA (SCHW-N) SCHWABE W GMBH; (SCHW-N) SCHWABE W & CO GMBH

CYC 18

PI DE 3940091 A 19910606 (199124)* <--

EP 431535 A 19910612 (199124) <--

R: AT BE CH DE ES FR GB GR IT LI LU NL SE

CA 2031385 A 19910605 (199133) <--

DE 3940091 C 19910919 (199138) <--

JP 03279331 A 19911210 (199204) <--

ES 2024400 A 19920301 (199214) <--

EP 431535 B1 19940302 (199409) EN 12p A61K035-78 <--

R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DE 69007035 E 19940407 (199415) A61K035-78 <--
 ES 2024400 T3 19940416 (199419) A61K035-78 <--
 US 5399348 A 19950321 (199517) 5p A61K035-78 <--
 JP 07076176 B2 19950816 (199537) 5p A61K035-78 <--
 KR 154977 B1 19981116 (200029) A61K035-78 <--
 CA 2031385 C 20010918 (200157) EN A61K035-78 <--
 ADT DE 3940091 A DE 1989-3940091 19891204; EP 431535 A EP 1990-123141
 19901203; JP 03279331 A JP 1990-400220 19901203; EP 431535 B1 EP
 1990-123141 19901203; DE 69007035 E DE 1990-607035 19901203, EP
 1990-123141 19901203; ES 2024400 T3 EP 1990-123141 19901203; US 5399348 A
 Cont of US 1990-625729 19901204, US 1992-905167 19920624; JP 07076176 B2
 JP 1990-400220 19901203; KR 154977 B1 KR 1990-19825 19901204; CA 2031385 C
 CA 1990-2031385 19901203
 FDT DE 69007035 E Based on EP 431535; ES 2024400 T3 Based on EP 431535; JP
 07076176 B2 Based on JP 03279331
 PRAI DE 1989-3940091 19891204
 REP EP 86315
 IC A61K035-78
 ICM A61K035-78
 ICS A61K031-70
 AB DE 3940091 A UPAB: 19930928
 Novel **extracts** from the **leaves** of **Ginkgo**
biloba are practically free from alkyl phenols, have a high
 content of **flavone glycosides** and contain most of the
ginkgolides and **bilobalide** originally present in the
leaves.
 Pref. the **extracts** contain 20-30 (esp. 22-26) wt.%
flavone glycosides, 2.5-4.5 wt.% total
ginkgolides A, B, C and J, 2.0-4.0 wt.% **bilobalide**, less
 than 10 ppm (esp. less than 1 ppm) alkyl phenols and less than 10 wt.%
 proanthocyanidine.
 USE/ADVANTAGE - The **extracts** promote circulation, inhibit
 ischaemic damage and aggregation of radical acceptors and thrombocytes.
 The **extracts** are esp. useful in the therapy of peripheral and
 cerebral arterial disorders of the circulation. Removal of the alkyl
 phenols (which are associated with allergies) is achieved without the need
 to use the chlorinated hydrocarbons necessary in previous processes, and
 thus the associated risks to the environment and potential residues in the
 phenol are avoided.
 O/O
 FS CPI
 FA AB; DCN
 MC CPI: A12-V01; B04-A07F2; B12-E01
 ABEQ DE 3940091 C UPAB: 19930928

The **extract** contains the following: (a) 20-30 (22-26) wt.%
flavone glycoside, (b) 2.5-4.5 wt.% **ginkgolides**
 A,B,C and J. (c) 2.0-4.0 wt.% bilobalide. (d) less than 10 ppm (pref.
 less than 1 ppm) alkylphenol cpds.; and (e) less than 10 wt.%
 proanthocyanidines.

The **extract** is prepd. by **extracting** the
ginkgo biloba leaves with a water/acetone
 mixt., a water/1-3C alkanol mixt. or anhydrous methanol. The organic
 solvents are removed until less than 10% remain. In the last distillation
 stage, water may be added. The resulting aq. soln. is thinned with water
 to give a solids content of 5-25 wt.%, cooled to below 25 deg.C and left
 to stand. A ppte. develops. The supernatant aq. soln. is treated with
 (NH₄)₂SO₄ followed by one or more **extns.** with methylethyl ketone
 or a mixt. of methylethyl ketone and acetone. The resulting
extract is conc. and thinned with a 50/50 water/ethanol mixt. (by
 wt.) to give a soln. contg. 10 wt.% solids. The soln. is treated with a
 lead cpd. or an insoluble polyamide, and **extracted** with an
 aliphatic or cycloaliphatic solvent with a b.pt. 60-100 deg.C. This is
 followed by concn., further treatment with (NH₄)₂SO₄ and **extn.**
 with methylethyl ketone and ethanol. The organic phase is concentrated to
 give a solid phase content of 50-70 wt.%, and the conc. is **dried**

until the water content is below 5%.

USE/ADVANTAGE - For the treatment of peripheral and cerebral arterial circulation disorders. The **extract** stimulates circulation, reduces ischaemia, inhibits thrombocyte aggregation and acts as a 'radical catcher'. The **extract** is prepd. without using environmentally damaging solvents. It contains almost no alkylphenol cpds. and is therefore unlikely to produce allergic reactions.

ABEQ EP 431535 B UPAB: 19940418

Extract from the leaves of Ginkgo biloba, containing - 20-30 weight percent flacon **glycosides**, - 2.5-4.5 weight percent of **ginkgolides A**, **B**, **C** and **J** (in total), - 2.0-4.0 weight percent **bilobalide**, - less than 10 ppm alkylphenol compounds and - less than 10 weight percent proanthocyanidins.

Dwg.0/0

ABEQ US 5399348 A UPAB: 19950508

Extract from Ginkgo biloba leaves contains **flavone glycosides** (20-30 wt%); **ginkgolides-A**, **-B**, **-C** and **-J** (2.5-4.5 wt%); **bilobalide** (2.0-4.0 wt%); proanthocyanidines (less than 10 wt%); and only traces (less than 10 ppm) of alkylphenol derivs. Pharmaceutical compsn. comprises this **extract** as the active component, dispersed with the usual carriers and opt. additives.

USE - The prods. are therapeutics for peripheral and cerebral arterial circulatory disorders.

ADVANTAGE - The prods. have radical scavenging properties, stimulate blood circulation, prevent ischemic disorders and inhibit blood platelet aggregation.

Dwg.0/0

L115 ANSWER 31 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1991-167036 [23] WPIX

DNC C1991-072256

TI **Extn.** for active components from **ginkgo leaves**

- using water or aq. ethanol with addn. of starch partial hydrolysate and glycosidase, useful for health foods etc..

DC B04 D13 D16 D21

PA (TAKA-I) TAKANE Y

CYC 1

PI JP 03098592 A 19910424 (199123)*

<--

ADT JP 03098592 A JP 1989-234798 19890912

PRAI JP 1989-234798 19890912

IC A23K001-16; A23L001-30; A23L002-38; A61K007-00; C07G003-00; C12P019-14

AB JP 03098592 A UPAB: 19930928

Water **soluble** components are **extracted** with water or water-ethanol mixed soln. Then to the water **soluble** components and **ginkgo leaves** contg. **extn.** soln., starch partial hydrolysate and glycosidase or transglycosidase are added to glycosyltransfer fat **soluble** or water sparingly **soluble** or insoluble components contained in **ginkgo leaves** to water **soluble glycoside**, to elute into the **extn.** soln. of water **soluble** components.

Ginkgo leaves from which water **soluble** components are **extracted** and removed, are put into mixed soln. of water-ethanol. Further, starch partial hydrolysate and glycosidase or transglycosidase are added to glycosyltransfer fat **soluble** components in **ginkgo leaves** to water **soluble glycoside** and to elute them.

After putting **dry extract of ginkgo leaves** into water or water-ethanol mixture, starch partial hydrolysate and glycosidase or transglycosidase that can transfer glucose gp. of the starch partial hydrolysate are added to glycosyl-transfer water sparingly **soluble** or insoluble active components contained in **dried extract of ginkgo leaves** to highly water **soluble glycoside**.

USE/ADVANTAGE - Water **soluble** active components and fat

soluble or water sparingly **soluble** or insoluble active components can be **extracted** at the same time. Also these active components can be **extracted** as easily absorbing **glycoside** in organism. They can be mixed to form health drinks or foods, seasoning, confectionery, bread, feed, cosmetics, drugs, etc. @ (6pp Dwg.No.0/0)

FS CPI

FA AB

MC CPI: B04-A07E; B04-A07F2; B04-C03B; B12-J01; B12-L02;
D03-H01; D05-H13; D08-B

L115 ANSWER 32 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1991-158381 [22] WPIX

DNC C1991-068305

TI **Extn.** of useful ingredients from ginkgo **leaves** - by heating **leaves** in water and adding partial starch hydrolysate and glycosidase to form **glycoside(s)**.

DC B04 D16

PA (TAKA-I) TAKANE Y

CYC 1

PI JP 03091490 A 19910417 (199122)* <--

ADT JP 03091490 A JP 1989-228638 19890904

PRAI JP 1989-228638 19890904

IC A61K035-78; C07G003-00; C12P019-18

AB JP 03091490 A UPAB: 19930928

Method is effected by heating **ginkgo leaves** in water or water-ethanol mixt. soln. and adding to the obtd. eluate partial starch hydrolysate and glycosidase or transglycosidase which transfer the glucose gp. of the hydrolysate, to convert useful ingredients of **ginkgo leaves** which are slightly water-**soluble** or insol. to their **glycosides** which are water-**soluble**. Also claimed is a method in which **dried** substance of **ginkgo leaf extrn.** is used in place of the eluate.

USE/ADVANTAGE - Ingredients may be obtd. which are slightly water-**soluble**, water-insol., or are water-**soluble**. In an example, **ginkgo leaves** were **dried**, ground, and **extracted** in an **extractor** by heating with reflux in 50% water-ethanol mixt. soln. for 2 hours. Then to the obtd. eluate, water, dextrin, and alpha-amylase contg. transglucosidase were added with cooling, followed by reaction at 50 deg.C for 30 hours for glucosylation. Then, the obtd. eluate was heated to 95 deg.C for enzyme inactivation, and filtered. The obtd. filtered soln. was subjected to ion column chromatography using 50% water-ethanol mixt. The obtd. outflow was concd. under reduced pressure, and **dried** at 40 deg.C for 6 hours to obtain **extract** of the ingredients

0/0

FS CPI

FA AB

MC CPI: B04-A07D5; B04-A07E; D05-A02; D05-H13

L115 ANSWER 33 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1990-092273 [13] WPIX

DNC C1990-040423

TI Use of **dry extract** of **ginkgo biloba leaves** - for treatment of cancer in conjunction with chemotherapeutic agents.

DC B04

IN SCHOLLE, H

PA (SCHO-I) SCHOLLE H

CYC 8

PI DE 3832056 A 19900322 (199013)* 2p <--

EP 359951 A 19900328 (199013) DE <--

R: CH DE ES FR GB IT LI NL

EP 359951 B1 19940126 (199404) DE 5p A61K035-78 <--

R: CH DE ES FR GB IT LI NL

DE 58906809 G 19940310 (199411) A61K035-78 <--

ES 2049280 T3 19940416 (199419) A61K035-78 <--
 ADT DE 3832056 A DE 1988-3832056 19880921; EP 359951 A EP 1989-113933
 19890728; EP 359951 B1 EP 1989-113933 19890728; DE 58906809 G DE
 1989-506809 19890728, EP 1989-113933 19890728; ES 2049280 T3 EP
 1989-113933 19890728
 FDT DE 58906809 G Based on EP 359951; ES 2049280 T3 Based on EP 359951
 PRAI DE 1988-3832056 19880921
 REP 5.Jnl.Ref; A3...9136; EP 303277; EP 352146; JP 01042426; No-SR.Pub; US
 4751224; 2.Jnl.Ref
 IC A61K031-35; A61K035-78
 AB DE 3832056 A UPAB: 19930928
 A **dry extract** of **Ginkgo biloba**
leaves is used for the treatment of metastatic cancerous
 illnesses. Pref. **dry Ginkgo biloba**
leaf extract is used in the form of an infusion of
 87.5mg of the **dry extract** standardised to 21.0mg
Ginkgoflavone glycoside or lg Sorbide.
 USE/ADVANTAGE - The **Ginkgo extract** is pref. used
 as a preliminary infusion before taking cytostatic chemotherapeutics.
 Smaller doses of the chemotherapeutic agents when used in conjunction with
 the **Ginkgoflavone glycoside** have a higher inhibiting
 effect on cancer growth than a combination of different cytostatic agents
 in higher doses.
 0/0
 FS CPI
 FA AB
 MC CPI: B04-A07F2; B12-G07
 ABEQ EP 359951 B UPAB: 19940307
 Use of a **dry extract** of **Ginkgo**
biloba leaves for the preparation of a medicament for a
 therapeutic application in metastatic cancerous diseases in combination
 with chemotherapeutic agents.
 Dwg. 0/0

L115 ANSWER 34 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1990-079062 [11] WPIX
 DNC C1990-034645
 TI Chocolate prodn. - where **ginkgo extract** is added.
 DC B04 D13
 PA (DAIL) DAICEL CHEM IND LTD
 CYC 1
 PI JP 02031646 A 19900201 (199011)* 3p <--
 ADT JP 02031646 A JP 1988-182033 19880721
 PRAI JP 1988-182033 19880721
 IC A23G001-00; A61K035-78
 AB JP 02031646 A UPAB: 19930928
 Chocolate contains **ginkgo extract** as an essential
 component.
 The **ginkgo extract** pref. contains either one or
 two **terpenes** e.g. **ginkgolide**, **bilobalide**,
flavonoids e.g. **quercetins**, **kaempferols**.
 USE/ADVANTAGE - The chocolate may be prepd. by using a common
 chocolate producing plant without alteration. The prod. is equivalent to
 conventional chocolate in appearance, smoothness, flavour and palate.
 In an example, prepn. of **ginkgo extract**,
dry leaves of **ginkgo** (1 g) were ground finely,
 and immersed in ethanol (20 ml). After refluxing at 60 deg.C for 1 hr.,
leaves were removed by filtration, solvent of the filtrate was
 distilled away, and 230 mg of the **extract** was obtd.. The
extract was suspended in 20% etOH aq. soln., insol. matters were
 removed, then solvent was distilled away. 120 mg of **extract** was
 obtd..
 0/0
 FS CPI
 FA AB
 MC CPI: B04-A07F2; B06-A01; D03-E07

L115 ANSWER 35 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1988-316529 [45] WPIX
 DNC C1988-139847
 TI Prodn. of solid pharmaceutical dosage forms - esp. of **Ginkgo biloba extract**, as water-soluble granules.
 DC A96 B04
 IN DUPINAY, P
 PA (FABR) FABRE MEDICAMENT SA PIERRE; (FABR) FABRE P MEDICAMENT; (BIOG-N) LAB BIOGALENIQUE
 CYC 13
 PI EP 290299 A 19881109 (198845)* FR 6p <--
 R: AT BE CH DE ES GB GR IT LI LU NL SE
 FR 2613223 A 19881007 (198847) <--
 EP 290299 B1 19930310 (199310) FR 7p A61K009-16 <--
 R: AT BE CH DE ES GB GR IT LI LU NL SE
 DE 3878978 G 19930415 (199316) A61K009-16 <--
 ES 2054840 T3 19940816 (199434) A61K009-16 <--
 ADT EP 290299 A EP 1988-400760 19880329; FR 2613223 A FR 1987-4700 19870403;
 EP 290299 B1 EP 1988-400760 19880329; DE 3878978 G DE 1988-3878978
 19880329, EP 1988-400760 19880329; ES 2054840 T3 EP 1988-400760 19880329
 FDT DE 3878978 G Based on EP 290299; ES 2054840 T3 Based on EP 290299
 PRAI FR 1987-4700 19870403
 REP FR 2007352; FR 2145803; FR 2583640; FR 840092; US 4344934; 1.Jnl.Ref
 IC ICM A61K009-16
 ICS A61K035-78; A61K047-44
 AB EP 290299 A UPAB: 19930923
 Prodn. of solid pharmaceutical dosage forms comprising water-soluble granules contg. a water-insoluble active ingredient (I) is effected by (a) wetting and/or **solubilising** (I) with an alcohol or aq. alcohol, (b) adding a surfactant and opt. a binder, (c) homogenising the resulting suspension or soln., (d) mixing with a water-soluble carrier, and (e) granulating and **drying** the mixt.
 USE/ADVANTAGE - The process is esp. useful for prodn. of oral dosage forms of **dry Ginkgo biloba extract** (GBE). Such dosage forms disperse readily in cold water, dissolved rapidly and completely, and form stable solns.
 0/0
 FS CPI
 FA AB; DCN
 MC CPI: A12-V01; B04-A07F2; B04-B01C1; B04-C03D; B10-A09A; B12-M11D
 ABEQ EP 290299 B UPAB: 19930923
 A method for preparing a solid galenic form containing an active principle which is insoluble in water, in the form of water-soluble grains, characterised in that the said water-insoluble active principle is a **dry plant extract**, in particular an **extract** from **Ginkgo biloba**, and in that the following successive operations are performed: moistening and/or **solubilisation** of the active principle by means of an alcoholic or aqueous/alcoholic solvent; adding a surfactant with or without a binder to the moistened or **solubilised** active principle, homogenising the suspension or solution so obtained or **solubilisation**, mixing the said suspension or solution with a pharmaceutically acceptable water-soluble substrate which is compatible with the active principle, granulating the said mixture and evaporating the solvent by **drying**
 0/0

L115 ANSWER 36 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1987-352124 [50] WPIX
 DNC C1987-150648
 TI Composition for normalising the blood neutral fat concn. - contg. ginkgo **leaf extract** as active ingredient.
 DC B04
 PA (NIGR-N) NIPPON GREEN WAVE K

CYC 1

PI JP 62255433 A 19871107 (198750)*

4p

<--

ADT JP 62255433 A JP 1986-98182 19860430

PRAI JP 1986-98182 19860430

IC A61K035-78

AB JP 62255433 A UPAB: 19930922

Claimed is a compsn. for normalising the blood neutral fat concn. which contains **ginkgo leaf extract** as active ingredient.

USE/ADVANTAGE - By continuous drinking of this composition, the blood neutral fat concn. is normalised gradually, no side effect is observed by a long period of continuous drinking.

In an example, **dried** and roughly crushed green **ginkgo leaf** (100 kg) is charged in **extracting** apparatus, and **extracted** by 60% acetone aqueous soln. (500 mg) for 5 hours. After cooling the mixture, the **extracted** soln. is separated from the **ginkgo leaf**. The obtained aqueous **extracted** soln. is **extracted** by CCl (60 l) for 2 times with stirring, and the CCl₄ layer is sepd. The aqueous acetone layer is distilled in vacuo to remove acetone, the hygroscopic residue is **dried** at 50 deg.C in vacuo for pulverisation. In this pulverised material, **flavonoid** is contained. To the 59 years old hypertensive man whose blood pressure is 190-110, blood neutral fat concn. is 139 at the first examination, this **extract** of 150 mg per day is continuously administered for 30 days. The concn. of the neutral fat in the blood is lowered to 94. (Normal concn. is 60-120). Similar effect is obtained against 2 women and 3 men.

0/0

FS CPI

FA AB

MC CPI: B04-A07F2; B12-H03

L115 ANSWER 37 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1987-352122 [50] WPIX

DNC C1987-150646

TI Liver function normalising compsn. - contg. **ginkgo leaf extract** as active ingredient.

DC B04

PA (NIGR-N) NIPPON GREEN WAVE K

CYC 1

PI JP 62255431 A 19871107 (198750)*

3p

<--

ADT JP 62255431 A JP 1986-98181 19860430

PRAI JP 1986-98181 19860430

IC A61K035-78

AB JP 62255431 A UPAB: 19930922

Liver function normalising compsn. contains **ginkgo leaf extract** as active ingredient.

USE/ADVANTAGE - By continuous drinking of this compsn., liver function shown by GPT, GOT is gradually normalised. No side effect is observed by long period of drinking.

In an example, **dried** and roughly crushed green **ginkgo leaf** (100 kg) is charged in **extracting** appts. and **extracted** by 60% acetone aq. soln. (500 l) at 55 deg.C for 5 hrs.. After cooling the **extracted** mixt. the **extracted** soln. is sepd. from the **ginkgo leaf**. The obtd. aq. **extracted** soln. is **extracted** by CCl₄ (60l) twice with stirring, and the CCl₄ layer is sepd. The aq. acetone layer is distilled in vacuo to remove acetone. The hygroscopic residue is **dried** at 50 deg.C in vacuo for pulverisation. This pulverised material contains **flavonoid**. To a 62 year old woman with liver function abnormality (GOT 51, GPT 34), this **extract** is administered at a dose of 150 mg/day for 20 days. The GOT and GPT are normalised to 17, and 11 respectively. To a 56 year old man with liver function abnormality (GOT 54, GPT 30), 150 mg of this **extract** is administered for 18 days. The GOT and GPT are normalised to 12 and 8 respectively. A 54 year old man with GOT 69, GPT 54 is similarly treated

for 3 weeks. The GOT and GPT are lowered to 39 and 31 respectively.

0/0

FS CPI

FA AB

MC CPI: B04-A07F2; B12-G02

L115 ANSWER 38 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1985-116906 [20] WPIX

DNC C1985-050580

TI Medicaments contg. **ginkgo biloba di lactone bilobalide** - for treatment of nervous diseases, pref. demyelinating neuropathy, encephalopathy and myelopathy and brain oedema.

DC B02

IN CHATTERJEE, S S; GABARD, B L; JAGGY, H E W

PA (SCHW-N) **SCHWABE GMBH & CO WILLMAR**; (SCHW-N) **SCHWABE GMBH & CO WILLMAR**; (SCHW-N) **SCHWABE GMBH & CO WILLMAR**

CYC 15

PI DE 3338995 A 19850509 (198520)* 20p <--

EP 143977 A 19850612 (198524) DE <--

R: AT BE CH DE FR GB IT LI LU NL

JP 60109522 A 19850615 (198530) <--

ZA 8408369 A 19850429 (198532) <--

US 4571407 A 19860218 (198610) <--

JP 62041688 B 19870904 (198739) <--

CA 1238280 A 19880621 (198832) <--

US 4892883 A 19900109 (199010) <--

DE 3338995 C 19900322 (199012) <--

EP 143977 B1 19950315 (199515) DE 13p A61K031-365 <--

R: AT BE CH DE FR GB IT LI LU NL

DE 3486378 G 19950420 (199521) A61K031-365 <--

IE 66527 B 19960124 (199613) A61K031-365 <--

ADT DE 3338995 A DE 1983-3338995 19831027; EP 143977 A EP 1984-112902 19841025; JP 60109522 A JP 1984-225657 19841026; ZA 8408369 A ZA 1984-8369 19841026; US 4571407 A US 1984-662598 19841019; US 4892883 A US 1988-256233 19881011; EP 143977 B1 EP 1984-112902 19841025; DE 3486378 G DE 1984-3486378 19841025; EP 1984-112902 19841025; IE 66527 B IE 1984-2765 19841026

FDT DE 3486378 G Based on EP 143977

PRAI DE 1983-3338995 19831027

REP 6.Jnl.Ref; A3...8719; No-SR.Pub; 2.Jnl.Ref

IC A61K009-00; A61K031-36; A61K035-78; C07D493-14

ICM A61K031-365

ICS A61K009-00; A61K031-36; A61K035-78; C07D493-14

AB DE 3338995 A UPAB: 19950518

Medicaments contg. **bilobalide** (I; a lactone from the leaves of **Ginkgobiloba**) for the treatment of nervous diseases.

Use of **bilobalide** in the treatment of nervous diseases.

Bilobalide can be isolated from **Ginkgobiloba leaves** by

e.g. the procedure of Leibig's Ann. Chem. 724 (1969), 214-216.

Suitable formulations include ointments, solutions, dragees, tablets, capsules and injection or infusion solns. Daily dosages are generally 5-40 mg orally, 0.5-5 mg parenterally, or 5-100 mg percutaneously.

USE - Treatment of neurological disorders caused by or associated with pathological changes in the myelin layer of the nerve fibres, esp. demyelinating neuropathies, encephalopathies and myelopathies and brain oedemas.

0/2

Dwg.0/2

FS CPI

FA AB

MC CPI: B06-A03; B12-C10; B12-E01

ABEQ DE 3338995 C UPAB: 19930925

Medicaments contg. **bilobalide** (I; a lactone from the leaves of **Ginkgobiloba**) for the treatment of nervous diseases.

Use of **bilobalide** in the treatment of nervous diseases.

Bisobalide can be isolated from **Ginkgobiloba leaves** by e.g. the procedure of Leibig's Ann. Chem. 724 (1969), 214-216.

Suitable formulations include ointments, solutions, dragees, tablets, capsules and injection or infusion solns. Daily dosages are generally 5-40 mg orally, 0.5-5 mg parenterally, or 5-100 mg percutaneously.

USE - Treatment of neurological disorders caused by or associated with pathological changes in the myelin layer of the nerve fibres, esp. demyelinating neuropathies, encephalopathies and myelopathies and brain oedemas.

0/2

ABEQ US 4571407 A UPAB: 19930925

Treatment of neuropathic disorders comprises administering **bilobalid** (I). Pref. amt. of (I) is 0.5-100 (5-40)mg/kg patient body wt.

USE/ADVANTAGE - (I) alleviates paraesthesia, paresis, abnormal reflexes, muscular atrophy, muscle spasms, tremor, disturbances of superficial and deep sensibility, headaches and pains in the limbs, disturbances of speech, vision and hearing, vertigo disturbances of consciousness, lack of coordination and concn., memory impairment and disorientation. It also alleviates disturbances of cerebral and peripheral blood flow. May be administered orally or parenterally, intramuscularly or intravenously. The use of (I) to treat demyelinating neuropathy, encephalopathy, myelopathy and cerebral oedema is claimed.

ABEQ US 4892883 A UPAB: 19930925

Pharmaceutical compns. for treating neuropathic disorders comprise a combination of **flavone glycosides** and **bilobalide** in a pharmaceutical carrier. The compsn. is pref. a whole **extract** of the **leaves** of **Ginko biloba**.

The compns. pref. contain 0.5-40, esp. 3-20% of **bilobalide** and 99.5-60, esp. 97-80% of residual monoextract of **Ginko biloba**.

USE - For treating demyelinating neuropathies, encephalopathies and myelopathies or cerebral oedemas.

ABEQ EP 143977 B UPAB: 19950425

Bilobalid for use as substance counteracting nervous diseases.
Dwg.0/2

L115 ANSWER 39 OF 39 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1970-19094R [12] WPIX

TI Vaso active substances obtained from **gingko biloba leaves**.

DC B04 C03

PA (SCHW-N) **SCHWABE GMBH & CO WILLMAR**

CYC 3

PI FR 2007352 A (197012)*

JP 46028091 B (197132)

DE 1767098 B (197223)

PRAI DE 1968-1767098 19680329

IC A61K027-00

AB FR 2007352 A UPAB: 19930831

Vaso-active substances obtained from **gingko biloba leaves**. F3A. Used for treating peripheral and cerebral arterial circulation disorders in the aged and are **extracted** from fresh or dried green leaves of **Ginkgo biloba** L. syn. **Salisburia adiantifolia** Smith with an organic solvent (lower alcohol or ketone) miscible with water and containing water at pref. 60-80 degrees C. This **extract** is itself **extracted** with a lipophilic solvent (lower halogenated aliphatic hydrocarbon) immiscible with water at 15-50 degrees C opt. followed by evaporation of the aqueous organic phase under reduced pressure. The **extract** contains quercetin, isoquercitrine, luteoline and kamferol-3-rhamnoside **glycosides** and sitosterine and as the **extractions** take place under very moderate conditions, the active substances are obtained in their original form. The aqueous organic phase

extract can be used without purification for oral administration but not for injections, when it must be treated with (NH₄)₂SO₄, **extracted** with organic solvent partially **soluble** in H₂O / (C₂H₅)₂CO or C₂H₅COCH₃/, evapd., **extracted** with low aliphatic alcohol (pref. C₂H₅OH), residue **dried** under reduced pressure, powder dissolved in water, pH adjusted to 7.5 and this soln. diluted 9 times with 4% soln. of sorbitol in H₂O.

FS CPI
FA AB
MC CPI: B04-A07F; B12-E01; C04-A07F; C12-E01

=> d all abeq tech tot

L117 ANSWER 1 OF 3 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2001-489627 [54] WPIX

DNC C2001-147195

TI **Fatigue** resisting composition.

DC B04

IN HU, Y; HUANG, Q; SHAO, Y

PA (SHAN-N) SHANGHAI BAILING GREEN HEALTH TONIC CO

CYC 1

PI CN 1297760 A 20010606 (200154)* A61K035-78 <--

ADT CN 1297760 A CN 1999-124116 19991125

PRAI CN 1999-124116 19991125

IC ICM **A61K035-78**

ICS A61P043-00

AB CN 1297760 A UPAB: 20010924

NOVELTY - The present invention provides one fatigue resisting composition with **ginkgo leaf extracting** matter and tea polyphenol as main components.

DETAILED DESCRIPTION - The composition contains **ginkgo leaf extracting** matter 30-50wt%, tea polyphenol 20-40 wt% and freeze **dried** royal 1-10 wt% other than corn starch. The present invention provides the preparation process of the composition, essentially including the preparation of **ginkgo leaf extracting** matter. Compared with available single **ginkgo leaf extracting** matter and single tea polyphenol, the composition of the present invention has obvious synergic effect. In addition, the preparation process of the present invention results in high content of **flavone** as the effective component in **ginkgo leaf extracting** matter.

Dwg.0/0

FS CPI

FA AB

MC CPI: B04-A08; B04-A09; B04-A10;
B11-B; B11-C01; B11-C09; B12-M07; B14-J01

L117 ANSWER 2 OF 3 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2001-418893 [45] WPIX

DNC C2001-126894

TI Process for **extracting ginkgolic total flavone**

DC B05

IN BA, W

PA (BAWW-I) BA W

CYC 1

PI CN 1293191 A 20010502 (200145)* C07D311-26

ADT CN 1293191 A CN 2000-129807 20001024

PRAI CN 2000-129807 20001024

IC ICM C07D311-26

ICS **A61K035-78**; C07D311-30

AB CN 1293191 A UPAB: 20010813

NOVELTY - A process for **extracting ginkgo total flavone** includes such steps as defatting, preparing the deposit of **flavonoid**, displacing **flavone**, recovering alcohol and

drying. Its advantages are high purity upto 49.8% of **flavone glycoside** content, simple operation, and high safety and speed.

Dwg.0/0

FS CPI
FA AB
MC CPI: B04-A07E; B04-A10; B06-A01

L117 ANSWER 3 OF 3 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2000-054138 [05] WPIX

DNC C2000-014329

TI Method for **extracting** material containing raw anthocyanidin from **gingko leaf** by supercritical carbon dioxide.

DC B04

IN SUN, C; SUN, M; SUN, Y

PA (SUNC-I) SUN C

CYC 1

PI CN 1228432 A 19990915 (200005)* 1p C07D493-18

ADT CN 1228432 A CN 1999-100588 19990205

PRAI CN 1999-100588 19990205

IC ICM C07D493-18

ICS A61K031-35; **A61K035-78**

AB CN 1228432 A UPAB: 20000128

A preparation method of **ginkgo leaf extract**

containing proto anthocyanidin by adopting supercritical CO2 and adding polar modifying agent formed from 50-80% of acetone and 50-20% of water includes the following steps: adding the above-mentioned modifying agent at 60-90 deg.C and 20-35 MPa to make static and dynamic **extraction** for 2-4 hr, and making the obtained **extract** undergo the processes of traditional resin concentration and spray-**drying** to obtain the refined **ginkgo leaf-extract** in which the **ginkgo flavone glycoside** content is greater than 35%, **terpene lactone** content is greater than 8%, protoanthocyanidin content is greater than 7% and the phenolic acid content is less than 5 mg/kg.

Dwg.0

FS CPI
FA AB
MC CPI: B04-A10

=> fil napral

FILE 'NAPRALERT' ENTERED AT 13:06:35 ON 17 DEC 2001

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FILE COVERS 1650 TO 10 DEC 2001 (20011210/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L141 ANSWER 1 OF 1 NAPRALERT COPYRIGHT (C) 2001 BD. TRUSTEES, U. IL.

AN 92:18543 NAPRALERT

DN H07524

TI **WATER-SOLUBLE POLYSACCHARIDES FROM GINKGO**

BILOBA LEAVES
AU KRAUS J
CS INST PHARM, UNIV REGENSBURG, REGENSBURG D-8400 GERMANY
SO PHYTOCHEMISTRY (1991) 30 (9) p. 3017-3020.
DT (Research paper)
LA ENGLISH
CHC 616
ORGN Class: GYMNOSPERM Family: **GINKGOACEAE** Genus: **GINKGO**
Species: BILOBA
Organism part: **DRIED LEAF**
Geographic area (GT): GERMANY; EUR
TYPE OF STUDY (STY): ISOLATION.
COMPOUND. Chemical name (CN): **GINKGO POLYSACCHARIDE GF-1**
Class identifier (CI): CARBOHYDRATE
COMPOUND. Chemical name (CN): **GINKGO POLYSACCHARIDE GF-3**
Class identifier (CI): CARBOHYDRATE
COMPOUND. Chemical name (CN): **GINKGO POLYSACCHARIDE GF-2-A**
Class identifier (CI): CARBOHYDRATE
COMPOUND. Chemical name (CN): **GINKGO POLYSACCHARIDE GF-2-B**
Class identifier (CI): CARBOHYDRATE

=> d qrd tot

L145 ANSWER 1 OF 2 NAPRALERT COPYRIGHT (C) 2001 BD. TRUSTEES, U. IL.
AN **1999:1769** NAPRALERT
DN **J18560**
TI GINGKO BILOBA L
AU VAN BEEK T A; BOMARDELLI E; MORAZZONI P; PETERLONGO F
CS LAB ORG CHEM, PHYTOCHEM SECTION, AGRICULTURED UNIV, WAGENINGEN
NETHERLANDS
SO FITOTERAPIA (1998) 69 (3) p. 195-244.
DT General review; (Scientific review paper)
LA ENGLISH
CHC 16684
ORGN Class: GYMNOSPERM Family: **GINKGOACEAE** Genus: **GINKGO**
Species: BILOBA
Organism part: **DRIED LEAF**
TYPE OF STUDY (STY): IN VIVO. Classification (CC): MISCELLANEOUS EFFECTS
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; GERBIL; DOSE: 120.0 MG per KG
Pathological system: CEREBRAL CORTEX
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT EGB-761**
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
INCREASED THE RATE OF OXYGEN UPTAKE IN ISOLATED CEREBRAL
MITOCHONDRIA.
TYPE OF STUDY (STY): IN VIVO. Classification (CC): MISCELLANEOUS EFFECTS
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RAT; DOSE: 50.0 MG per KG
Pathological system: BRAIN
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT EGB-761**
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
IMPROVED BRAIN MITOCHONDRIAL RESPIRATION IN AGED RATS.
TYPE OF STUDY (STY): IN VIVO. Classification (CC): MEMORY ENHANCEMENT
EFFECT
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; MOUSE; DOSE: 100.0 MG per KG
Pathological system: BRAIN
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT EGB-761**
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

IMPROVED SHORT TERM MEMORY BUT NOT LONG-TERM MEMORY IN
AGED ANIMALS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): SEROTONIN AGONIST
ACTIVITY

Extract type: ETOH(100%)EXT

Dosage Information: IP; RAT; DOSE: 5.0 MG per KG

Pathological system: CEREBRAL CORTEX

Qualitative results: ACTIVE

Comment(s): **GINKGO** BILOBA SPECIAL **EXTRACT** EGB-761

WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

REVERSED AGE-RELATED LOSS OF SEROTONERGIC RECEPTORS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): ADRENERGIC
AGONIST(ALPHA)

Extract type: ETOH(100%)EXT

Dosage Information: IP; RAT; DOSE: 5.0 MG per KG

Pathological system: CEREBRAL CORTEX

Qualitative results: ACTIVE

Comment(s): **GINKGO** BILOBA SPECIAL **EXTRACT** EGB-761

WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

REVERSED AGE-RELATED LOSS OF ADRENERGIC RECEPTORS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): SEROTONIN AGONIST
ACTIVITY

Extract type: ETOH(100%)EXT

Dosage Information: INTRAGASTRIC; RAT; DOSE: 50.0 MG per KG

Pathological system: HIPPOCAMPUS

Qualitative results: ACTIVE

Comment(s): **GINKGO** BILOBA SPECIAL **EXTRACT** EGB-761

WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

PREVENTED COLD STRESS-INDUCED DESENSITISATION OF
HIPPOCAMPAL SEROTONERGIC RECEPTORS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): MEMORY ENHANCEMENT
EFFECT

Extract type: ETOH(100%)EXT

Dosage Information: INTRAGASTRIC; RAT; DOSE: 50.0 MG per KG

Qualitative results: ACTIVE

Comment(s): **GINKGO** BILOBA SPECIAL **EXTRACT** EGB-761

WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

INHIBITED THE EFFECT OF AUDITORY STRESS ON DISCRIMINATIVE
LEARNING IN YOUNG AND OLD RATS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): MEMORY ENHANCEMENT
EFFECT

Extract type: ETOH(100%)EXT

Dosage Information: INTRAGASTRIC; RAT; DOSE: 50.0 MG per KG

Qualitative results: ACTIVE

Comment(s): **GINKGO** BILOBA SPECIAL **EXTRACT** EGB-761

WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

VS.SHORT-TERM OLFACTORY MEMORY TEST.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): NEUROPROTECTANT
EFFECT

Extract type: ETOH(100%)EXT

Dosage Information: INTRAGASTRIC; MOUSE; DOSE: 50.0 MG per KG

Pathological system: HIPPOCAMPUS

Qualitative results: ACTIVE

Comment(s): **GINKGO** BILOBA SPECIAL **EXTRACT** EGB-761

WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

PROTECTED THE INTRA-AND INFRA-PYRAMIDAL MOSSY FIBERS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): MEMORY ENHANCEMENT
EFFECT

Extract type: ETOH(100%)EXT

Dosage Information: IP; RAT; DOSE: 100.0 MG per KG

Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT EGB-761**
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
STIMULATED FUNCTIONAL RECOVERY OF SPATIAL LEARNING IN
HRATS WITH UNILATERAL ENDORHINAL CORTEX LESIONS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): VESTIBULAR
COMPENSATION INCREASE
Extract type: ETOH(100%)EXT
Dosage Information: IP; CAT; DOSE: 50.0 MG per KG
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
POSTOPERATIVE TREATEMNT ACCELERATED LOCOMOTOR BALANCE
RECOVERY AFTER UNILATERAL VESTIBULAR NEURECTOMY.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): NEUROPROTECTANT
EFFECT
Extract type: ETOH(100%)EXT
Dosage Information: ROUTE NOT GIVEN; RAT; DOSE: NOT STATED
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
INHIBITED PKC IN GLOBAL CEREBRAL ISCHEMIA MODELS.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): VASODILATOR ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: RABBIT; CONC USED: NOT STATED
Pathological system: AORTA
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT EGB-761**
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
ENHANCED RELEASED OF ENDOTHELIUM RELAXATION FACTOR
(NITRIC OXIDE).

TYPE OF STUDY (STY): IN VITRO. Classification (CC): VASOCONSTRICTOR
ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: RABBIT; CONC USED: 100.0 MCG per ML
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT EGB-761**
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
POTENTIATED NORADRENALINE-INDUCED CONTRACTIONS OF RABBIT
SAPHENOUS ARTERY AND VEIN.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): VASODILATOR ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: RABBIT; CONC USED: 100.0 MCG per ML
Pathological system: AORTA
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT EGB-761**
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
MEDIATED AND EDRF/NO RELAXING EFFECT ON
ENDOTHELIUM-INTRACT AORTIC RINGS.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIOXIDANT ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: CELL CULTURE; CONC USED: 20.0 MCG per ML
Pathological system: CELLS-ENDOTHELIAL
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT EGB-761**
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
VS.LIPID PEROXIDATION.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): HYDROXIDE RADICAL
GENERATION INHIBITION
Extract type: ETOH(100%)EXT
Dosage Information: CONC USED: NOT STATED
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT EGB-761**

WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW ARTICLE.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): SUPEROXIDE RADICAL SCAVENGING ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: CONC USED: NOT STATED
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW ARTICLE.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIOXIDANT ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: HUMAN ADULT; CONC USED: 50.0 MCG per ML
Pathological system: NEUTROPHILS-HUMAN
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW ARTICLE.
VS.OXYGEN FREE RADICAL PRODUCTION INDUCED BY BACTERIAL CHEMOTACTIC PEPTIDE.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIOXIDANT ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: HUMAN ADULT; CONC USED: NOT STATED
Pathological system: RBC
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW ARTICLE.
VS.HYDROGEN PEROXIDE INDUCED LIPID PEROXIDATION.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIOXIDANT ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: HUMAN ADULT; CONC USED: 500.0 MCG per ML
Pathological system: LYMPHOCYTES-HUMAN
Qualitative results: ACTIVE
Comment(s): ANTAGONIZED OXIDATIVE DAMAGE OF DNA.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): SEROTONIN LEVEL INCREASE
Extract type: ETOH(100%)EXT
Dosage Information: MOUSE; CONC USED: 2.0 MCG per ML
Pathological system: SYNAPTOSOME
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
INHIBITED A REDUCTION IN SEROTONIN UPTAKE INDUCED BY ASCORBIC ACID.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): SEROTONIN LEVEL INCREASE
Extract type: **FLAVONOID** FRACTION
Dosage Information: MOUSE; CONC USED: NOT STATED
Pathological system: MICROMONOSPORA CHALCEA
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
INHIBITED A REDUCTION IN SEROTONIN UPTAKE INDUCED BY ASCORBIC ACID.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIOXIDANT ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: IC50: 15.0 MCG per ML
Qualitative results: ACTIVE
Comment(s): INHIBITED NO-MEDIATED OXIDATION OF OXYHEMOGLOBIN.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): ANTIOXIDANT ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: HUMAN ADULT; CONC USED: NOT STATED
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
PROTECTED LDL AGAINST OXIDATIVE DAMAGE.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIOXIDANT ACTIVITY
Extract type: ETOH(100%)EXT

Dosage Information: HUMAN ADULT; CONC USED: 50.0 MCG per ML
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
PROTECTED LDL AGAINST OXIDATIVE DAMAGE.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIARRHYTHMIC
ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: RAT; CONC USED: 200.0 MCG per LITER
Pathological system: HEART
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIOXIDANT ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: RAT; CONC USED: 10.0 MCG per ML
Pathological system: HEART
Qualitative results: ACTIVE
Comment(s): REDUCED HYDROXYL RADICAL CONCENTRATION IN CORONARY
EFFLUENTS.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIAGING ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: HUMAN ADULT; CONC USED: 5.0 MCG per ML
Pathological system: FIBROBLASTS-HUMAN
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
VS.ETHANOL-INDUCED STRESS.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): APOPTOSIS INHIBITION
Extract type: ETOH(100%)EXT
Dosage Information: RAT; CONC USED: 100.0 MCG per ML
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
VS.HYDROXYL RADICAL EXPOSURE OF CEREBRAL NEURONS.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): PROTEIN KINASE C
INHIBITION
Extract type: ETOH(100%)EXT
Dosage Information: IC50: 82.0 MCG per ML
Qualitative results: ACTIVE

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIOXIDANT ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: RAT; CONC USED: 20.0 MCG per ML
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
MODULATED SECRETION OF APO-E AND APO-J IN CORTICAL
PRIMARY ASTROCYTES.

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIISCHEMIC EFFECT
Extract type: ETOH(100%)EXT
Dosage Information: IV; RAT; DOSE: 50.0 MG per KG
Pathological system: HEART
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
REDUCED VENTRICULAR **EXTRASY** STOLES INDUCED BY
MYOCARDIAL ISCHEMIA.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): ANTIOXIDANT ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RAT; DOSE: 200.0 MG per KG
Pathological system: HEART
Qualitative results: ACTIVE
Comment(s): **GINKGO** BILOBA SPECIAL **EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
PROTECTED AGAINST ISCHEMIC DAMAGE INDUCED BY
OXYGEN-DERIVED FREE RADICALS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): ANTIISCHEMIC EFFECT
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RAT; DOSE: 60.0 MG per KG
Pathological system: HEART
Qualitative results: ACTIVE

Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): SUPEROXIDE DISMUTASE
STIMULATION
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RAT; DOSE: 100.0 MG per KG
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): NEUROPROTECTANT
EFFECT
Extract type: ETOH(100%)EXT
Dosage Information: IP; RAT; DOSE: 5.0 MG per KG
Pathological system: CEREBRAL CORTEX
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
REVERSED AGE-RELATED LOSS OF ADRENERGIC AND SEROTONERGIC
RECEPTORS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): NEUROPROTECTANT
EFFECT
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RAT; DOSE: 50.0 MG per KG
Pathological system: HIPPOCAMPUS
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
PREVENTED COLD STRESS-INDUCED DESENSITISATION OF
SEROTONERGIC RECEPTORS IN OLD ISOLATED RATS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): MEMORY ENHANCEMENT
EFFECT
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RAT; DOSE: 50.0 MG per KG
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
ANTAGONISED THE EFFECT OF AUDITORY STRESS ON
DISCRIMINATIVE LEARNING IN YOUNG AND OLD ANIMALS.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): MEMORY RETENTION
IMPROVEMENT
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RAT; DOSE: 50.0 MG per KG
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
PREVENTED RETENTION DEFICIT INDUCED BY SCOPOLAMINE.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): MEMORY ENHANCEMENT
EFFECT
Extract type: ETOH(100%)EXT
Dosage Information: IP; RAT; DOSE: 60.0 MG per DAY
Pathological system: HIPPOCAMPUS
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
IMPROVED SPATIAL LEARNING PERFORMANCE IN ANIMALS
SUBJECTED TO A LIMITED SEPTOHIPPOCAMPAL LESION.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): ANTIISCHEMIC EFFECT
Dosage Information: SC; MOUSE; DOSE: 5.0 MG per KG
Pathological system: CEREBRAL CORTEX
Qualitative results: ACTIVE
Comment(s): THESE DATA ARE FROM A REVIEW ARTICLE.
PROTECTED AGAINST FOCAL CEREBRAL ISCHEMIA.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): ANTIOXIDANT ACTIVITY

Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RAT; DOSE: 100.0 MG per KG
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.
PROTECTED RAT RETINAL AGAINST LIPOPEROXIDATION.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): TOXICITY
ASSESSMENT(QUANTITATIVE)
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; MOUSE; 1; LD50: 7.73 GM per KG
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): TOXICITY
ASSESSMENT(QUANTITATIVE)
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RAT; LD50: 10.0 GM per KG
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): TERATOGENIC ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RAT; FEMALE; DOSE: 1.6 GM per KG
Qualitative results: INACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

TYPE OF STUDY (STY): IN VIVO. Classification (CC): TERATOGENIC ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; RABBIT; FEMALE; DOSE: 900.0 MG per KG
Qualitative results: INACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

TYPE OF STUDY (STY): IN HUMANS. Classification (CC): PHARMACOKINETIC
STUDY OF
Extract type: ETOH(100%)EXT
Dosage Information: INTRAGASTRIC; HUMAN ADULT; GIVEN TO BOTH SEXES;
DOSE: 4.0 GM
Qualitative results: .
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

TYPE OF STUDY (STY): IN HUMANS. Classification (CC): CEREBRAL
INSUFFICIENCY IMPROVEMENT
Extract type: ETOH(100%)EXT
Dosage Information: ORAL; HUMAN ADULT; GIVEN TO BOTH SEXES; DOSE:
200.0 MG per DAY
Pathological system: CELLS-CHICKEN-MUSCLE
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

TYPE OF STUDY (STY): IN HUMANS. Classification (CC): ANTIALZHEIMER'S
ACTIVITY
Extract type: ETOH(100%)EXT
Dosage Information: ORAL; HUMAN ADULT; GIVEN TO BOTH SEXES; DOSE:
120.0 MG per DAY
Qualitative results: ACTIVE
Comment(s): **GINKGO BILOBA SPECIAL EXTRACT** EGB-761
WAS USED IN THE STUDY. THESE DATA ARE FROM A REVIEW
ARTICLE.

L145 ANSWER 2 OF 2 NAPRALERT COPYRIGHT (C) 2001 BD. TRUSTEES, U. IL.

AN 1999:1263 NAPRALERT

DN J18244

TI PREPARATION OF DRY EXTRACT RICH IN GINKGOLIDES
FROM GINKGO BILOBA L. LEAVES

AU LI X G; WEI W; CHEN W

CS DEPT CHEM, NAVAL MED COLL, NANJING 2100099 CHINA

SO ZHONGGUO YIYAO GONGYE ZAZHI (1998) 29 (1) p. 8-9.

DT Journal

LA CHINESE

OS CA 129:58679

CHC 560

ORGN Class: GYMNOSPERM Family: GINKGOACEAE Genus: GINKGO

Species: BILOBA

Organism part: DRIED LEAF

TYPE OF STUDY (STY): ISOLATION.

COMPOUND. Chemical name (CN): GINKGOLIDES

Class identifier (CI): DITERPENE

Yield: 10.6%

TYPE OF STUDY (STY): ISOLATION.

COMPOUND. Chemical name (CN): FLAVONOID GLYCOSIDES

Class identifier (CI): FLAVONOID

Yield: 27.4%

=> d his

(FILE 'HOME' ENTERED AT 11:32:20 ON 17 DEC 2001)

SET COST OFF

FILE 'HCAPLUS' ENTERED AT 11:32:38 ON 17 DEC 2001

E GINGO/CT

E E7+ALL

L1 1481 S E5+NT
L2 1483 S E4+NT
L3 1956 S E4,E5,E6,E7,E8,E10/BI
L4 1956 S L1-L3
E GINKGO
E GINKG
L5 1 S E16
L6 1957 S L4,L5
L7 717 S L6 AND (LEAF OR LEAVE)
L8 2 S L6 AND LEAFY
L9 718 S L7,L8
E WO99-DE1812/AP,PRN
L10 1 S E3,E4
E DE98-19829516/AP,PRN
L11 1 S E3,E4
E OSCHMANN R/AU
L12 22 S E3,E4
E OSCHMAN R/AU
E OESCHMANN R/AU
E GRETHLEIN E/AU
L13 4 S E3-E5
L14 166 S (WILLMAR(L)SCHWAB?)/PA,CS
L15 12 S L6 AND L12-L14
L16 17 S L6 AND (WILLMAR? OR SCHWAB?)/PA,CS
L17 17 S L10,L11,L15,L16
L18 10 S L17 AND L9
L19 16 S L17 AND EXTR?
L20 17 S L17-L19
L21 415 S L9 AND EXTR?
L22 25 S L21 AND SOLUB?
L23 17 S L22 AND (H2O OR WATER)
SEL DN 1 4 12 15

L24 13 S L23 NOT E1-E4
L25 8 S L22 NOT L23
SEL DN 6-8
L26 3 S E5-E7 AND L25
L27 31 S L20,L24,L26
L28 156 S L6 AND ?GLYCOSIDE?
L29 101 S L6 AND ?LACTONE?
L30 154 S L6 AND TERPEN?
L31 385 S L6 AND FLAVON?
L32 191 S L21 AND L28-L31
L33 26 S L32 AND (DRY OR DRIED OR DRYING OR DRIES)
L34 18 S L33 AND GINK?/TI
L35 8 S L33 NOT L34
L36 3 S L35 AND GIN?/TI
L37 21 S L34,L36
L38 5 S L33 NOT L37
L39 2 S L38 AND NATURAL/TI
L40 1 S L39 NOT GREEN/TI
L41 22 S L37,L40
L42 459 S ?GINKGOLIC? OR ?GINKGOLID? OR ?BILOBALID?

FILE 'REGISTRY' ENTERED AT 11:58:52 ON 17 DEC 2001

L43 325 S (?GINKGOLIC? OR ?GINKGOLID? OR ?BILOBALID?)/CNS

FILE 'HCAPLUS' ENTERED AT 12:00:06 ON 17 DEC 2001

L44 628 S L43
L45 288 S L42,L44 AND L6
L46 179 S L45 AND EXTR?
L47 12 S L46 AND (DRY OR DRIED OR DRYING OR DRIES)

FILE 'REGISTRY' ENTERED AT 12:01:09 ON 17 DEC 2001

L48 1 S 122933-57-7

FILE 'HCAPLUS' ENTERED AT 12:01:23 ON 17 DEC 2001

L49 158 S L48
L50 239 S EGB 761 OR EGB761
L51 218 S L49,L50 AND L6
L52 210 S L51 AND EXTR?
L53 4 S L52 AND (DRY OR DRIED OR DRYING OR DRIES)
L54 3 S L52 AND SOLUB?
L55 30 S L41,L47,L53
L56 28 S L55 AND (PD<=19990619 OR PRD<=19990619 OR AD<=19990619)
L57 17 S L55 NOT P/DT
L58 1 S L57 NOT L56
L59 16 S L57 NOT L58
L60 28 S L56,L59
L61 2 S L55 NOT L60
L62 1 S L61 AND P/DT
L63 29 S L60,L62
SEL HIT RN

FILE 'REGISTRY' ENTERED AT 12:05:52 ON 17 DEC 2001

L64 7 S E8-E14

FILE 'HCAPLUS' ENTERED AT 12:06:41 ON 17 DEC 2001

L65 29 S L63 AND L1-L42,L44-L47,L49-L63

FILE 'HCAPLUS' ENTERED AT 12:07:03 ON 17 DEC 2001

E FILTRATION/CT
E E3+ALL
L66 15614 S E3,E2+NT
E E17+ALL
L67 3 S L66 AND L6
L68 2 S L67 NOT L63

FILE 'WPIX' ENTERED AT 12:10:58 ON 17 DEC 2001

L69 581 S L3,L5
 E GINK
 L70 566 S E3-E23,E25,E26-E33,E35
 E GING
 L71 623 S L69,L70
 L72 66 S L42
 E GINKGOLIC/DCN
 E E4+ALL
 L73 18 S E2
 L74 21 S E4
 L75 14 S E6
 L76 4 S E8
 L77 7 S E10
 E BILOBALIDE/DCN
 L78 62 S L71 AND L72-L77
 L79 630 S L71-L78
 L80 313 S L79 AND (LEAF OR LEAFY OR LEAVE)
 L81 82 S L71 AND (B04-A09A OR C04-A09A OR B04-A07D5 OR C04-A07D5 OR B0
 L82 324 S L80,L81
 L83 118 S L79 AND (?GLYCOSIDE? OR ?LACTONE? OR TERPEN? OR FLAVON?)
 E OSCHMANN R/AU
 L84 14 S E3
 E GRETHLEIN E/AU
 L85 4 S E3
 L86 39 S (WILLMAR?(L)SCHWAB?)/PA
 L87 8 S L79 AND L84-L86
 L88 51 S (N161 OR N163 OR N164)/M0,M1,M2,M3,M4,M5,M6 AND L79
 L89 375 S L79 AND (B04-A07 OR B04-A07D# OR B04-A07E OR B04-A07F# OR B04
 L90 14 S L79 AND (C04-A07 OR C04-A07D# OR C04-A07E OR C04-A07F# OR C04
 L91 387 S L88-L90,L81
 L92 420 S L79 AND EXTR?
 L93 21 S L79 AND (B11-B OR C11-B OR E11-Q)/MC
 L94 522 S L91-L93
 L95 304 S L94 AND A61K035-78/IC,ICM
 L96 102 S L94 AND A61K035-78/ICS
 L97 304 S L95-L96
 L98 76 S L83 AND L97
 L99 159 S L79 AND (DRY OR DRIES OR DRIED OR DRYING)
 L100 138 S L99 AND L94
 L101 85 S L100 AND L97,L98
 L102 26 S L83 AND L101
 L103 7 S L102 AND SOLUB?
 L104 14 S L87,L103
 L105 18 S L102 NOT L104
 L106 17 S L105 NOT TRANSFERASE/TI
 L107 31 S L104,L106
 L108 22 S L100 AND SOLUB?
 L109 14 S L108 NOT L107
 L110 2 S L109 AND GINK?/TI
 L111 12 S L109 NOT L110
 SEL DN AN 4 11
 L112 2 S L111 AND E1-E4
 L113 45 S L107,L108,L110,L112
 L114 45 S L113 AND L69-L113
 L115 39 S L114 AND (PY<=1998 OR PRY<=1998)

FILE 'WPIX' ENTERED AT 12:50:36 ON 17 DEC 2001

L116 6 S L114 NOT L115
 L117 3 S L116 AND (FATIGUE OR GINK? OR GINGK?)/TI

FILE 'NAPRALERT' ENTERED AT 12:52:50 ON 17 DEC 2001

L118 101 S L43 OR L48
 E GINKG
 E GINK
 L119 1020 S E3-E31
 E GING

L120 29 S E42-E45
L121 1020 S E53-E80
L122 1022 S L118-L121
L123 770 S L122 (L) (LEAF OR LEAVE OR LEAFY)
L124 765 S (GINKG? OR GINGK?)/TI
L125 1022 S L122,L124
L126 770 S L125 (L) (LEAF OR LEAVE OR LEAFY)
L127 904 S L124,L126
L128 267 S GINKGOLIC? OR GINKGOLID? OR BILOBALID?
L129 1033 S L125,L128
L130 770 S L129 (L) (LEAF OR LEAVE OR LEAFY)
L131 670 S L130 (L) (DRY OR DRIED OR DRIES OR DRYING)
L132 144 S L131 (L) EXTR?
L133 119 S L132 AND PY<=1998
L134 109 S L133 AND (GINK? OR GINGK?)/TI
L135 87 S L134 AND EXTR?/TI
L136 0 S L132 (L) SOLUB?
L137 4 S L129 (L) SOLUB?
L138 2 S L137 AND WATER/TI
L139 1 S L138 NOT PEROXIDE/TI
L140 0 S L139 AND L132
L141 1 S L139 AND L131

FILE 'NAPRALERT' ENTERED AT 13:06:35 ON 17 DEC 2001

L142 97 S L131 (L) (GLYCOSIDE? OR FLAVON? OR TERPEN? OR LACTONE?)
L143 8 S L142 AND L133
L144 8 S L143 NOT L137
SEL DN AN L144 2 3
L145 2 S E1-E4 AND L144
SET COST ON